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ABSTRACT

The first-year results of a Tennessee college-school partnership program to implement a data-based school improvement change model--the Positive Attitudes in Tennessee Schools Project (PATS)--are summarized in this report. Two major goals of the first year (1989-90) included assessing and improving school climate and enhancing student and teacher self-esteem. Faculty from 6 state higher education institutions were paired with 41 participating schools, which included 4 special, 20 elementary, 6 middle/junior high, and 11 senior high schools, to monitor their development. Longitudinal research was conducted to determine the influences on school and classroom climates resulting from school improvement initiatives and to assess the differential impact of changes on a number of dependent variables. Instruments included the Tennessee Classroom Climate Inventory (TCCI), Tennessee School Climate Inventory (TSCI), Self Concept as a Learner-Revised (SCALR), and a teacher self-esteem assessment. Findings indicate overall positive assessments of the schools' instructional programs, but widespread student dissatisfaction in the areas of participation and classroom interaction. Findings also point to variations existing between schools and communities. Generally, students reported stable academic self-images, but differed in their perceptions of classroom climates. Appendices include state training tables, school and classroom climate tables, self-concept as learner tables, and a summary of student data. (35 references) (LMI)

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# The PATS Project:
# A State of Tennessee School Reform Initiative

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## INTRODUCTION

In January, 1986 Ned Ray McWherter took office as Governor of the State of Tennessee. Governor McWherter had been Speaker of the House of Representatives for many years and had been an important leader in the education reform movement in the former Governor Lamar Alexander's Better Schools Program, which has been so visible to the nation. It became obvious that the new Governor had an educational reform agenda that moved beyond that of the Better Schools Program, one involving a set of new initiatives to better prepare Tennessee for the emergence of the 21st century. Governor McWherter felt that some critical issues had not been a part of school reforms in the past and, if the state were to be prepared for the year 2000 and beyond, problems such as those relating to at-risk students, status of the teaching profession, adult literacy and parental/community involvement must be addressed. As articulated by the current Commissioner of Education, Charles S. Smith, the Better Schools Program had "just scratched the surface". As a result of sessions held by the Governor and the Commissioner with an Education Summit group, the Tennessee Business Roundtable (composed of the state's most prominent businessmen and industrialists), Senate and House Education Committees, professional organizations and educators, educational priorities of the 1990s became clear. These have recently been summarized in the report, *21st century challenge: Statewide goals and objectives for educational excellence* (Smith, 1990).

State-level leadership in Tennessee today recognizes that education is truly everybody's business. It is a business that requires partnerships--partnerships between government and the people; partnerships between parents and the schools; partnerships between business/industry leaders and school officials. Partnerships yield common goals and a common sense of purpose, which in turn yield outcomes that meet identified needs. Congruent with national trends associated with "America's crisis in education," opportunities now exist in Tennessee, according to Commissioner Smith, to develop a "broad, strong consensus about educational change, involving parents, teachers, principals, school boards, business leaders, and government officials" (Vincent, 1987). The Commissioner has also articulated the notion that effective reform depends on leadership within the schools rather than on prescription from Nashville. Thus the state's role in reform has been defined as focusing on improving work conditions in the schools and providing incentives to encourage local planned change initiatives.

In view of the leadership and commitments of the Governor and the Commissioner of Education, personnel in the Department of Professional Development recognized that priority should be given to working with local education agencies to implement programs that would respond to the initiatives of the 21st Century Challenge. One resulting program, conceptualized and initiated in 1988 and 1989, is the focus of this symposium.

The professional development staff set seven criteria for the program which eventually came to be known as PATS (Positive Attitudes in Tennessee Schools). The new program would

(1) be grounded on research; (2) be made available to all school professional and classified personnel; (3) utilize training modules developed for use and implementation over an extended time period; (4) be implemented at the local level by leadership teams in each school; (5) be designed to address state-wide concerns associated with students at risk of failure or dropping out of school, teacher enhancement, and parental/community involvement; (6) have state wide management and technical assistance provided by state department personnel; and (7) possess a research and evaluation component to be initiated in concert with implementation of the program.

Influencing the early conceptualizations of the program focus was the need expressed by superintendents for a program focusing on attitudes. Their concerns specifically focused on negative attitudes expressed by many students, parents and professional personnel. A lack of respect for individuals and individual worth was, they maintained, contributing to school dropouts and professional burnout.

During the 1988 school year, planning for the PATS Project was begun with specifics relating to the goals, implementation schedule, training of leadership teams, and site selection procedures. Planning for the training modules to be utilized during the first year was also begun.

## THE PATS PROJECT

### Overview

The PATS Project is designed to achieve several goals over a five-year period through school site-based leadership teams with state-level coordination. These goals are: to improve the quality of school climates for teachers, staff and administrators; to improve the quality of school climates for students; to provide renewal activities for teachers through positive professional development activities; to motivate students to stay in school; to increase the performance level of students, particularly those "at risk"; to enable students to make rational life decisions, based on high self esteem and positive attitudes; to promote a cooperative relationship among all concerned constituents of the educational community; and to celebrate outstanding PATS programs in Tennessee (*Positive Attitudes in Tennessee: Program description*, 1989).

Two dimensions emphasized during the first year (1989-90) are assessing and improving school climate and enhancing self-esteem of students and teachers. The focus on self esteem is also a major issue of concern in at least one other state, as evidenced by the recent report of the California Task Force to Promote Self-Esteem and Personal and Social Responsibility (*Toward a state of esteem*, 1990). Specific program dimensions in subsequent years to be emphasized in the PATS Project will be determined, in part, as a result of empirical assessments conducted during the initial year and school improvement plans created by school leadership teams.

## The Research and Evaluation Components

The research and evaluation components of the PATS Project were developed as a result of planning by the research team and state department representatives during the spring and summer of 1989. The intent was to have in place a research and evaluation design at the beginning of the project. Personnel of the College of Education, Memphis State University, assumed responsibility for developing this plan under the sponsorship of the Center of Excellence in Education, a research unit of the College funded by the State Board of Regents and the Tennessee General Assembly. Year one research and evaluative efforts will be summarized later and findings based on data generated in 37 of the 41 sites during the 1989 fall semester highlighted.

## School Site Selection, Year 1

Guidelines directing the selection of the sites stated that each of the three grand divisions of the State should be represented, as well as rural and urban communities, different types of systems (county, city, special), various sizes of pupil populations served, and all educational levels (elementary, middle, and senior high). Also, only one school in a school district would be selected as a pilot site for Year 1. Principals of the schools were required to participate in the training if schools were to be pilot sites.

The Site Selection Committee, a broad-based, state-wide group, reviewed the application forms and discussed the particular merits of each school under review. In addition to the agreed upon guidelines, other factors influencing the selections were those listed on the applications. These included: need to improve school-community relations; presence of high-risk learners, school drop-outs, teen pregnancies, or students with low self esteems; relation of PATS goals to previously identified school goals and program renewal efforts; problems created by changing demographic factors (rural-urban, racial, ethnic, social class); high number of underachievers, discipline problems, student suspensions or absences; negativism in the school and community created by previous administrations; lack of parental involvement; problems associated with teacher attitudes; and school consolidation issues.

The initial plan called for the identification of 30 school sites to participate during the 1989-90 school year with 30 additional sites to be added each year. Applications were submitted by school principals with superintendent endorsements. A total of 57 schools in 38 school districts submitted applications by the April 1989 deadline (Butler & Alberg, 1989a). Because of the need to include urban schools, and small student populations in some rural sites selected, a decision was made to identify 37 as pilot sites for the 1989-90 school year. Five state operated schools, four of which serve special student populations, were later approved for participation during the 1989-90 school year. The total number of schools participating in a year is 41. One of the original 37 schools elected not to participate.

The 41 schools employ more than 1800 professional and support personnel and enroll

approximately 25,000 students. In addition to the special schools (n=4), the schools reflect various elementary (n=20), middle/junior high (n=6), and senior high school (n=11) organizational structures and are located in a variety of communities, e.g. rural, small town, suburban, and urban. Spread throughout the three regions of the state (east, middle, and west) they vary considerably in size of professional/support staff and student populations.

## Training of Leadership Teams

Faculty-administrator teams, composed of the principal and three teachers, from the 41 school sites participated in a state-level training in school climate theory and self-esteem strategies in June and September, 1989. School leadership team training was designed to facilitate the implementation of PATS program emphases during year one: assessing and improving school environments, and implementing strategies to enhance self-esteem of students and professionals. Materials utilized for self esteem enhancement were developed for school use by Don Lowry (*True colors trainers resource guide*, 1988). Much of the June training was conducted by Don Lowry's associates. September training was conducted by State Department of Education staff.

The training also emphasized the role that the teams would have in facilitating change within the school sites, including responsibility for designing and conducting site in-service training, implementing other school staff development activities, ensuring community involvement, and providing leadership in developing individual learning environment improvement plans. In addition, team members were expected to assist in data collection requested by the research and evaluation team.

## School Improvement Change Model

A dissemination model is utilized in the project to guide planning and implementation activities focusing on school improvement. Dissemination, as a policy tool, relies heavily on the use of knowledge-based products by external agents in stimulating and supporting planned change at the local level (Firestone & Corbett, 1988).

Specific school improvement activities of the PATS Project are based upon several key considerations:

1. Program products are to be non-threatening.
2. Leadership teams are trained to introduce the materials and activities and coordinate implementation at each participating site.
3. Consistent program focus is maintained in all sites through the provision of technical assistance and state-wide communication.
4. Complexities of change in association with site factors are acknowledged and utilized.
5. Practicality of program implementation is linked to local organizational procedures

and guidelines.

6. Innovative practices are expected as outcomes of the implementation process.
7. New information generated in the sites and successful change processes realized are disseminated to other sites.

The model also incorporates the recognition that the changes sought may depend upon modifications of the normative structures of schools that support or inhibit change and improvement.

Summer PATS training academies planned for leadership teams following the first year of the project will address program goals and local needs identified in the assessment data generated by the research and evaluation component. The leadership teams will also be introduced to the latest state-of-the-art educational practices that hold promise for addressing state-wide, as well as local, needs. Active principal involvement, development of leaders among the teaching staffs, and relevance of the training materials to classroom teacher concerns will also be emphasized.

The planned five-year phase-in of program sites allows for change to be cumulative over time with on-going training and technical assistance by the staff from the Office of Professional Development, Tennessee State Department of Education. Assistance provided will be driven by local program needs.

It is expected that what is learned about the effectiveness of the dissemination model as facilitating educational change and use of empirical assessment to direct learning environment improvements will be of value to others interested in planned educational reform. Hopefully, more will be learned about norms that support school improvement and promote student learning.

## THE RESEARCH AND EVALUATION COMPONENTS

The research and evaluation components are designed on two complimentary models. One model, known as a "policy research and evaluation model" (Nisbet, 1988), utilizes issues of current concern to direct systematic inquiry designed to provide an information base for informed decision making by practitioners. In the PATS Project, research activities have been developed to yield empirical data for use in decision making and program development in each school site and in state-wide program evaluation. Monitoring and evaluating initiatives in educational policy and practice emerging from the state program and school improvement action plans are also features of this model. The second model is commonly called "fundamental research", where the purpose is to contribute to knowledge, understanding, and the improvement of theory. Data obtained in the school sites are analyzed and reported within these two broad conceptualizations.

For participating schools and state department personnel, the research yields data that assist in establishing the "facts", thereby informing judgments regarding needs, problems, and strengths since data collection, analyses, and reporting strategies are designed to be responsive to practical needs. Framed within the fundamental research model, these data can also be used in contributing

to the knowledge base relative to the developing field of school climate research, which can be distinguished as an area of inquiry grounded on an extensive research literature on school effects and organizational climate (Anderson, 1982).

PATS research and evaluation activities in year one have included the following:

1. Evaluation of the program development and site selection phases
2. Evaluation of the training of the school site leadership teams
3. Evaluation of site-based in-service staff development
4. Assessment of classroom and school climates by site
5. Assessment of student academic self concepts
6. Development of a system for constructing fall 1989 school learning environment profiles which provide baseline data to be utilized in assessing changes observed over time (Butler & Alberg, 1990).
7. Development of psychometric investigations of the inventory scales utilized and normative profiles of student and faculty populations, and preliminary generalizations about the fall 1989 data based upon various exploratory desciptive-analytical inquiries.

As longitudinal research, the purpose is to determine factors influencing school and classroom changes resulting from school improvement initiatives and to assess the differential impact of the changes on a number of dependent variables. Inquiries will be designed to combine two perspectives that have directed recent school climate research: climate or culture as a dimension of organizational reality and school-level effects on student performance (Anderson, 1982; Miskel & Ogawa, 1988). Baseline data obtained during the fall of 1989 are viewed as empirical indicators of the normative structures present in the participating schools as organizational realities. Future studies will explore the changes observed in school-level effects. In summary, the long-term goal is to better understand large-scale educational change initiatives and contribute to an improved understanding of school climate changes on teaching and learning.

A unique feature of the project involves pairing of higher education faculty-researchers with pilot schools to monitor developments in the sites and collect qualitative data. Faculty from six Tennessee universities and colleges have been paired with participating schools during the 1989-90 school year. Plans are to identify other higher education faculty who are interested in participating as site observers during the second year of the project.

On-site data are generated by the faculty-researchers through use of a focused interview guide which solicits faculty, administrator, and student perceptions of project activities (Zeisel, 1984). Interview probes solicit information regarding True Colors materials and activities, site team leadership and coordination, use of learning environment assessment data and understandings gained relative to class as well as school climate, progress made in developing school improvement plans, types of technical support provided by state personnel, and parent/community involvement with the PATS Project.

Various action-research projects jointly planned and implemented by teams composed of higher education representatives, school administrators and faculty are expected to result from the faculty-school pairings. Higher education personnel are also encouraged to consult with the principals and faculties of the participating schools in analyzing the learning environment data provided through the Research and Evaluation Component and in developing school improvement action plans.

## SCHOOL LEARNING ENVIRONMENTS: THEORY AND ASSESSMENT

The construct of a school's learning environment is conceived as a composite of school and classroom socio-psychological factors which influence student achievement, attitudes, and conceptions of self (Stockard & Mayberry, 1985). Two instruments developed for use in the PATS Project yield quantitative measures of school and classroom climate factors with survey-type perceptual data obtained from school employees and students (Butler & Alberg, 1989b). A brief overview of the theoretical frameworks and research traditions on which the instruments were grounded follows.

### Classroom Climate: Theory and Instrumentation

Classroom climate is framed conceptually on the definition offered by Walberg describing climate as that "atmosphere of the class as a social group that potentially influences what students learn" (1987, p. 553). As such, class climate is one of four components comprising a model of classroom learning: instruction and environment being contextual factors along with student aptitude (or ability) and student learning (or achievement) (Frazer, 1985; Anderson & Walberg, 1974). Numerous studies analyzing environmental influences on learning and behavior [e. g. homes, colleges, work, and health care settings (Moos, 1987); the ecology of teaching (Bray, 1983); school social systems (Brookover et al, 1979); and communal factors existing in school contexts (Bryk & Driscoll, 1988)] along with investigations into classroom socio-psychological climates (van der Sijde, 1987-88; Creemer & Tillema, 1987-88; Frazer, 1985; Walberg, 1987; Haertel, Walberg & Haertel, 1979; Moos, 1973) have found context factors to have major influences on student cognitive and affective outcomes.

The use of student recorded perceptions of class environments is based on the belief that a group of learners represent "sensitive, well-informed judges of a class" (Walberg, 1987). Furthermore, "student perceptions, as partakers of classroom social transaction, are of great value, and it is easy enough to ask them" (Walberg, 1987). These student self-reported perceptions, which are subjective ratings of perceived behavior, are "high-inference" measures since they do not involve ratings of specific events or behaviors, rather general impressions and high-level generalizations (Chavez, 1983).

A developing literature suggests that processes occurring within K-12 classroom units can better explain student cognitive and affective outcomes than can factors and variables at school or community levels (Creemer & Tillema, 1987-88). This notion is associated with the differential context hypothesis which holds that differences in student performances are due primarily to classroom contextual effects. Treating the classroom, or the social-emotional environment or climate, as an instructional or curricular condition, rather than as an outcome holds promise for directing inquiries into classroom learning environments (van der Sijde, 1987-88). Both of these contemporary research developments have been utilized in designing PATS related research and in planning data analyses to be conducted in the future.

Tennessee Classroom Climate Inventory (TCCI)

Classroom climate is assessed in the project through administration of the Tennessee Classroom Climate Inventory (TCCI) which contains 44 items (#1-44) that solicit students' self-reported perceptions of 11 dimensions of classroom climate (Butler & Alberg,1989b). Items are structured to yield Likert-type ratings of always false to always true (1-5). Items are written in positive and negative directions with negative items reverse scored to yield scaled scores ranging from 5 to 20. Two forms of the TCCI have been developed for administration to upper elementary and junior/senior high students. Administration time is 35-40 minutes with student responses recorded on Scantron forms for computer processing.

Classroom climate dimensions measured by the inventory, their descriptions, and items are:

1. Cohesiveness: extent to which students know, help, and are friendly toward each other. (#3, 9, 11, 34)
2. Equality: extent to which students perceive equal treatment. (#8, 17, 20, 39)
3. Curriculum: perceptions of class objectives, value associated with the subject, and student involvement in curriculum decision making. (#10, 19, 27, 44)
4. Difficulty: perceptions of instructional pace, subject matter difficulty, effort required, and challenges presented (#4, 12, 24, 36)
5. Communication: perceptions of verbal communications in class and with parents. (#16, 18, 28, 29)
6. Evaluation: practices relating to evaluation procedures and reporting to students. (#22, 33, 40, 43)
7. Physical Environment: adequacy of classroom space, books and materials; comfort of the setting. (#2, 25, 32, 35)
8. Order: extent to which the class is organized, rules are enforced, and confusion/misbehavior exists. (#5, 21, 31, 42)

9. Instruction: perceptions of involvement of learners in class activities, subject presentation, and value of homework. (#1, 14, 23, 41)
10. Culture: perceptions of class ethos including respect and trust, feelings of pride in the classwork, and lack of boredom. (#6, 13, 26, 30)
11. Satisfaction: extent to which students anticipate and enjoy the class, like to have visitors, and reflect encouragement. (#7, 15, 37, 38)

Preliminary reliabilities for the 11 scales of the inventory are not considered adequate since no alphas exceed .66. This lack of reliability may be due, in part, to the small number of items composing each scale. Initial explorations of the factor structure have identified several dominant factors existing, tentatively labeled as instruction, interpersonal relations, evaluation, equity, student involvement, order, and difficulty. Subsequent revisions of the items and scales of the inventory are anticipated with reanalyses of the baseline data also planned.

The inventory was administered to students during the fall of 1989 along with several other sets of questions and scales. These include temperament ratings using the True Color metaphors, personal information, educational preferences/personal styles, and self-perceptions of personality. Personal information obtained included sex, grade level, age, GPA, home information, and time spent out of school. In addition, secondary school students reported involvement in extra-curricular activities, drop-out information, and plans following high school. Information on educational preferences/personal styles collected included learning preferences and views of schools, education, and teachers. Self-perceptions were also solicited relating to behaviors framed within the temperament classifications of True Colors.

Teacher reported data relative to at-risk factors, participation in free or reduced lunch programs, grade or subject repetition, and participation in pull-out programs were requested and received from most sites. School code numbers for students were also obtained when possible.

## School Climate Theory, Related Constructs and Instrumentation

School climate research has developed rapidly during the past two decades (Anderson, 1982; Chavez, 1984; Stockard & Mayberry, 1985; Miskel & Ogawa, 1988) and reflects a variety of orientations to exploring the social, cultural, and organizational contexts of schools. The effective schools literature has also contributed findings relative to the influence of educators' beliefs and expectations about student achievement, the role of school leadership and sense of control and autonomy perceived by teachers, emphasis placed on academics by the school staff, importance of goal-oriented programs, and students' acceptance of school norms (Firestone & Corbett, 1988; Miskel & Ogawa, 1988; Westbrook, 1982). Research into the values and behaviors taught by the "hidden curriculum" of school social systems, open classroom research, socio-psychological analyses of school organizations; investigations of how learning is affected by

academic and community environments, along with communal influences in school contexts, have all contributed to broadly conceived programs of research investigating school context dimensions (Bryk & Driscoll, 1988).

As a construct utilized in this research project, school climate is defined as "norms, beliefs, and attitudes reflected in institutional patterns and practices that enhance or impede student achievement" (Wallich, 1981). The notion of climate is also similar to that of "culture" which includes belief systems, values, general cognitive structures, and meanings that govern patterned relationships of persons and groups (Tagiuri, 1968).

Tennessee School Climate Inventory (TSCI)

The Tennessee School Climate Inventory (TSCI)was developed to generate measures of school climate in the project (Butler & Alberg, 1989b). The items are based upon constructs measured in similar instruments and are logically associated with factors reported to be influential in school and organizational climate research. The initial version of the inventory contains 49 statements comprising seven scales of seven items each. Responses are scored through use of Likert-type ratings (strong disagreement to strong agreement, 1-5). The inventory was designed for administration to all school personnel as well as to parents and citizens. Each scale yields summative scores ranging from 7 to 35 with higher scores being more positive.

The seven scales of the TSCI are listed below with descriptions and item numbers. Negative items are underlined; responses to these items are reversed for computing scaled scores.

1. Order: Extent to which the environment is ordered and appropriate student behaviors are present.
   Scale items: 13, 23, 25, 30, 39, 44, 46
2. Leadership: Extent to which the administration provides instructional leadership.
   Scale items: 8, 20, 34, 36, 42, 45, 47
3. Environment: Extent to which positive learning environments exist.
   Scale items: 7, 9, 10, 14, 29, 38, 49
4. Involvement: Extent to which parents and the community are involved in the school.
   Scale items: 5, 11, 12, 18, 19, 32, 37
5. Instruction: Extent to which the instructional program is developed and implemented.
   Scale items: 4, 15, 24, 33, 35, 41, 48
6. Expectations: Extent to which students are expected to learn and be responsible.
   Scale items: 2, 3, 17, 21, 22, 27, 43

7. Collaboration: Extent to which the administration, faculty, and students cooperate and participate in problem solving
Scale items: 1, 6, 16, 26, 28, 31, 40

Reliabilities range from .66 for senior high schools faculties on the Expectations scale to .90 on the Environment scale for junior high/middle school teachers. The average scale reliability coefficient for the seven scales is .80. Exploratory factor analytic studies have identified a six factor structure identified as student discipline, school and community, ecology (physical and cultural), instruction, leadership, and constraints. Further developmental work with the factor structure may result in revision of the scales of the inventory and a reanalysis of the baseline data.

The inventory was administered to teachers and other school employees during the fall term, 1989. Other data collected include rankings of True Colors, ratings of the in-service training, ratings of the value of strategies for improving student self-esteem, personal information, and information on tracer and school variables such as school size, community type, region of the state, grade level assignment, and position within the school.

## Self-esteem: Theory and Instrumentation

The constructs of self, self-concept and self-esteem embraced in this research are framed on the definitions offered by Hamachek (1978) who maintains the terms are overlapping in meaning though each can be thought of as referring to a specific component of a total personality. Self-concept measures sought in this research are viewed as associated with the cognitive part of self, or a "particular cluster of ideas and attitudes we have about our awareness at any given moment in time" and not self-esteem, which is an affective aspect, associated with feelings about self (Hamachek, 1978). Embraced also is the self-as-object orientation where one's perceptions of the self result from thinking in contrast with the self-as-process view in which the self is a doer (Hamachek, 1978). Since the PATS Project seeks to yield changes designed to improved student views of themselves as learners, e.g., influence motivations and attitudes toward school and classroom activities, rather than general self enhancement that might be associated with non-school contexts, it seemed appropriate to obtain measures based on perceptions that are clearly cognitive and directly related to learning and behaving in a class context. Measures of affective aspects, or self-esteem, have not been constructed. Training activities provided the leadership teams and school faculties, however, directly focus on self-esteem theory and strategies.

### Self Concept as a Learner-Revised (SCALR)

The Self Concept as a Learner-Revised (SCALR) is used to obtain measures of students'

perceptions of themselves as learners. The revised inventory is condensed and adapted from an instrument originally developed by W. B. Waetjen (Butler & Alberg, 1989b). The current version consists of 44 items comprising four subscales which yield measures of motivation, task orientation, problem solving, and class membership. Items solicit Likert-type responses which range from always false to always true (1-5). Items are stated in positive and negative terms according to the way an adequate learner would respond. Responses to the negative items are reverse scored to yield scaled scores representing the four factors assessed. Scaled scores range from a low of 11 to a high of 55 with higher scores reflecting more positive conceptions of self. The four factors and the items of the inventory are: (1) Motivation - degree to which the student perceives himself motivated to do school work and participate in learning activities (Items 1-11); (2) Task orientation - way the student sees himself in relation to various learning activities (Items 12-22); (3) Problem solving - conception of self as problem solver (Items 23-33; (4) Class membership - manner in which the student views himself in relation to other members of the class (Items 34-44). Two forms of the inventory have been developed, one for elementary students and one for secondary students, grades 7-12.

Preliminary alpha reliability estimates for the scales of the SCALR indicate that modifications of the items and restructuring of the scales are indicated. Reliabilities for the current scales range from .60 for the motivation scale (fifth grade sample) to .81 for class membership (11th grade sample). Exploratory analyses of the factor structure of the current items have revealed six principal factors.

The SCALR was administered to students attending PATS Project schools during the fall of 1989, along with several other sets of questions and scales. These included temperament ratings using the True Color metaphors, personal information, educational preferences/personal styles, and self-perceptions of personality. Personal information obtained included sex, grade level, age, GPA, home information, and time spent out of school. In addition, secondary school students reported involvement in extra-curricular activities, drop-out information, and plans following high school. Information on educational preferences/personal styles collected included learning preferences and views of schools, education, and teachers. Self-perceptions were also solicited relating to behaviors framed within the temperament classifications of True Colors.

Teacher reported data relative to at-risk factors, participation in free or reduced lunch programs, grade or subject repetition, and participation in pull-out programs were requested and received from most sites. School code numbers for students were also obtained when possible.

## LEADERSHIP TEAMS: CHARACTERISTICS, TRAINING, AND PERSPECTIVES

Faculty/administrator leadership teams from each of the 41 school sites participated in leadership training held in June and September, 1989. The training was designed to facilitate the

implementation of PATS Program emphases during year one, specifically, assessing and improving school environments and implementing strategies to enhance the self-esteem of students and professionals.

Workshops were also conducted during the month of December, 1989 in each of the three grand divisions of the state. In addition to sharing experiences and ideas related to PATS, leadership teams received training in enhancing classroom climate and in interpreting school climate, classroom climate, and self concept as learner data which have been provided by the research and evaluation team.

## Participants

Thirty-four teams participated in the June training session. Three of the selected schools were not able to send teams at that time. One of those schools eventually withdrew from the project. Teams from the two remaining schools joined teams from the state's five special schools, which were added to the project in late summer, for training in September.

Among the 129 participants in the June training were 38 school administrators, 74 classroom teachers and 12 non-classroom specialists (counselors, speech therapists, etc.). Of the 36 attending in September, 13 were administrators, 12 were classroom teachers, and the remainder were non-teaching specialists. Bachelors degrees were held by 32 (26%) of the June and 4 (10%) of the September participants; masters degrees by 45 (36%) of the June and 8 (21%) of the September participants. Forty-eight (37%) of the June group had completed 45 hours of post masters work and 6 (5%) had earned specialist degrees. Twenty-one (54%) of the September group had completed 45 hours of post masters work, 1 (3%) had completed a specialist degree, and 2 (5%) had earned a doctorate.

Both groups were experienced professionally, with 41 (32%) of June participants and 9 (25%) of September participants having ten or fewer years of experience, and 88 (68%) of June participants and 27 (75%) of September participants having more than ten years of experience. There were 90 females and 39 males attending in June, and 18 females and 16 males attending in September (two individuals left the gender item blank). Additional demographic information for both training sessions can be found in Table 1, Appendix A.

## Training Sessions

The primary focus of training in both June and September was on strategies for enhancing the self esteem of teachers and students. Materials and instructional activities utilized are contained in various manuals prepared for a self-esteem program developed for school use by Don Lowry (*True colors trainers resource guide*, 1988). Based upon theoretical views of personality and temperament offered by Isabel Myers-Briggs (1980) and David Keirsey (1978), the True Colors program is grounded in an orientation recognizing four basic patterns which drive behavior and

through which human beings strive to experience self-esteem. The True Colors metaphor is a means through which behavioral patterns and predispositions can be assessed, understood, and valued. As behavioral types, they are manifest in preferences, aims, needs, motives, attitudes and learning/thinking styles. Lowry's approach also seeks to integrate entertainment and education through an "edu-tainment model," which uses theater to portray the four color types and communicate the language and conceptions of the theoretical framework. The metaphors, or color keys, of blue, gold, orange, and green are used for the four behavioral patterns incorporated in the materials.

Data collected through pre and post administration of items solicited perceptions of school dimensions using the "Perceptions and Attitudes toward Teaching" subscale of the *Schools and Staffing Survey, Public School Teachers Questionnaire* (Center for Education Statistics, 1987-88), relative value of 19 self-esteem building educational strategies, ratings of training, information about personal rankings of the four True Colors behavioral patterns, and demographic information.

## Attitudes and Perceptions Regarding School Conditions

Due to the selection process, it was expected that attitudes and perceptions of PATS team members would be uniformly high. Participation by schools was voluntary, with the support of school district administrators. Because teachers were chosen by principals to serve on the teams, similarity of attitudes and beliefs of team members were anticipated. These expectations were generally confirmed by the data (see Table 2, Appendix A).

Item means for the June group were high, falling below the neutral response level (3.00) only on satisfaction with salary, class size, parental support, and routine duties and paperwork. The September group fell below the neutral response level on two items only. Routine duties and paperwork again prompted such a response, but this group also fell below neutral on the item dealing with teacher participation in important educational decision making in the school. This is particularly interesting considering the high percentage of administrators in the September group.

When items are ranked, those dealing with confidence in the school principal appear at the top of both lists. Examples are enforcement of school rules (ranked numbers 1 and 4.5), fair teacher evaluation (ranked numbers 3.5 and 1.5), supportive behavior on the part of the school administrator (ranked numbers 2 and 6.5) and knowledge and communication of goals (ranked numbers 3.5 and 4.5). Low on both lists are routine duties and paperwork (ranked numbers 22 and 23), satisfaction with teaching salary (ranked numbers 23 and 21) and parental support (ranked number 20 by both groups). Interesting differences are observed in the ranking of certain items. For example, the September group gave top ranking to coordination of course content with other teachers, while that item ranked 17th with the June group. The September group also ranked satisfaction with class size much higher than did the June group; that item received rankings of 6.5 and 21, respectively. It is likely that the large percentage of special school personnel present in the September group accounts for these differences.

Analyses of the June data conducted by Huffman and Alberg (1989) found that the greatest disparities in responses appeared between representatives of elementary, middle/junior and senior high schools, with elementary personnel exhibiting consistently more positive attitudes toward the profession of teaching. Significant differences by school level were obtained for 15 of the 23 items.

### Educational Strategies for Enhancing Self-esteem

Participants were also asked to respond to 25 items that relate to strategies or approaches suggested by educators as ways of developing positive self-esteem in students (Wideman, 1982). These responses were solicited both before and after the training. Items were structured to yield Likert-type ratings of not valuable to extremely valuable (1-5). Results are presented in Table 3, Appendix A.

As might be expected, ratings of the strategies were uniformly high, both before and after the training. Only on one item, telling students about your own interests, does the mean fall below 4.0. The most highly regarded strategies, such as being a positive role model and making positive comments to students, are consistent for both groups. Rated lower by both groups were items dealing with recognition and encouragement of extra-curricular activities and encouraging students to participate in classroom decision-making.

Little variation in means that can be attributed to the training is noted. Ranking of two items, those dealing with encouragement of cooperation within the classroom and providing students with opportunities to show peers that they can do well dropped noticeably for both groups after the training, but means for those items changed little.

## LEARNING ENVIRONMENTS IN THE PILOT SCHOOLS: BASE YEAR PROFILES

### 1989 School Climate Audits

School leadership teams were to conduct in-service training for all professional personnel in the individual schools and, if possible, involve support personnel as well. This training was to be scheduled early in the 1989-90 school year if it could be arranged. Those attending training sessions were administered a set of instruments containing scales and questions designed to solicit perceptions relating to school climate, as well as provide personal information and ratings of the training activities.

Thirty-one of the 41 schools submitted data for coding and processing by the announced deadline in October 1989. Preliminary results of the fall climate audits were distributed to the 31 schools prior to or during the month of November, 1989, along with tables and graphic profiles reflecting composite summaries. Data from these 31 schools were used to generate fall school climate norms and yield initial base year information.

The remainder of the participating schools submitted school climate and in-service training data in December, 1989, and January and February, 1990. Individual reports were prepared and distributed to these schools, but the data were not included in fall norms. Thus, school faculty and administrative personnel in all 41 school sites, along with support staff in many instances, participated in PATS Project training sessions and provided information on which individual school climate audits were based.

School climate data summarized here were obtained from 1444 individuals holding faculty, administrator, or support staff positions in 37 schools: 20 elementary schools (N=686), 6 junior high or middle schools (N=200), and 11 high schools (N=558). Data reported by personnel employed in four state-operated schools serving special student populations are not included in the composite summaries.

## School Climate Data Analysis and Preliminary Results

Descriptive statistics of the responses to the items by school levels were generated and percentages of respondents marking agreement (4) or strong agreement (5) with the items determined (see Table 1, Appendix B). Based upon the percent of respondents agreeing with the climate items, several conclusions can be drawn regarding overall climate dimensions in the schools. These preliminary results are summarized by the dimensions of school climate assessed. An overall positive perception is judged to be present when at least half of the respondents agree with an item. More positive perceptions are assumed to exist when 60% or more of the respondents report agreement.

### Order.

The schools are viewed as safe and secure places to work (73%) with problems of order associated with student conduct in the schools. While a majority held generally positive views toward student behavior and the enforcement of rules for student conduct, student misbehavior is perceived to exist at all levels. Student conduct seems to be more of a problem at the junior high level with school absence and tardiness more serious in senior high schools. Joint responsibilities for student discipline existing between schools and homes are reported by approximately a third of the respondents.

### Administrative Leadership.

Positive perceptions of administrative leadership in the schools is evident at all levels. Administrators are reported as being visible in the schools (66%), providing strong instructional leadership (55%), communicating that students can learn (66%), encouraging teachers to be creative (61%), and providing evaluative feedback on staff performance (57%). Administrators are

also viewed as protecting instructional time in the schools and providing leadership in reviewing and updating schools goals, though less so at the junior high level.

School Facilities and Environments.

Generally positive perceptions of school facilities exist for elementary and junior high schools, with senior high buildings viewed less positively. Pride in the schools and students is reflected (61%) with faculty/staff reporting that they feel important (64%). Less positive perceptions exist for the presence of varied learning environments, an atmosphere of trust, and respect existing between students and school employees.

School/Community Involvement.

Parents are reported to be treated courteously (75%) and as serving on advisory committees, primarily at the elementary level. Less than a fourth of the respondents agree that parents are involved in home-school support networks (21%). Parent volunteers are more active in the elementary schools and parents are encouraged to visit elementary classrooms more than junior and senior high classes. Elementary schools make more use of newsletters and bulletins for communication with parents and report more involvement with community businesses.

Instructional Programs.

A variety of teaching strategies (70%) and materials (66%) are reported being used along with appropriate evaluation methods (69%). Curriculum guides direct coverage of subject content (62%), learning is sequenced to insure student success (51%), and students are perceived as having opportunities to develop higher-order skills (58%). Pull-out programs in the schools are not seen as interfering with basic instruction. Overall, instructional programs are viewed positively at all grade levels.

Student Expectations.

School rules and expectations for students are reported as being defined and communicated (66%) with students held responsible for their actions (62%). Low achievers are also seen as having opportunities to succeed (58%). However, less than half of the junior and senior high teachers agree that high expectations are held for all students. Most students are viewed as participating in school activities though they do not share responsibility for school environments, especially at the junior and senior high levels.

Collaborative Problem Solving.

School faculties are viewed as being committed to the goals of the schools (64%) and believe that problems can be solved without outside help (64%). Communications (55%) and

cooperation (54%) existing among the faculties and staff personnel are viewed positively, though more participation by teachers in decision-making is desired (51%). Students are generally not encouraged to help others with problems (36%) or participate in solving problems in the schools (24%).

Empirical estimates of school climate dimensions were constructed by summing responses to the items of the seven scales with negative items reverse scored before summing, allowing higher means to reflect more positive perceptions. Dimension means were analyzed by significance tests (ANOVAs or t-tests) using scaled scores as dependent variables and selected demographic information as independent variables. Independent variables reported here include school level (elementary; junior; senior), school type (rural; urban), and teacher age group (under 30; 30 to 39; 40 to 49; 50 and over). Tables reporting these analyses appear in Appendix B. Results suggest the following generalizations.

School Level.

- Elementary school climates are viewed more positively than those existing in junior or senior high schools.
- While no significant variations exist between junior and senior high climate dimensions, more positive perceptions are associated with senior high schools for all dimensions except Environment and Student Expectations.

School-Community Type.

- Rural and urban school climates were not found to differ except on School and Community Involvement. Urban schools were viewed more positively on this dimension.

Age Groups.

- Generally, teachers 50 and over hold more positive perceptions of school climate dimensions, followed by teachers between the ages of 30 and 39.
- Teachers 50 and over and those between 30 and 39 view Order in the schools more positively than do teachers under 30.
- Older teachers view school climates more positively than younger teachers, especially Environment, School and Community Involvement, and Instruction.

## Student Data: Collection, Demographics, and Profiles

Class climate and self concept data obtained from students in six grade levels in 28 schools

(15 elementary, 4 junior high/middle, 9 senior high) were coded and analyzed for distribution to school leadership teams in three regional workshops held in December, 1989. School leadership teams were provided with computer printouts of their students' responses and copies of blank tables for transcribing the data. Summary reports of class climate were based on data solicited from students in grades 4, 7, and 10. Student samples in grades 5, 8, and 11 provided self concept as learner data. Additional student profiles were provided for temperament types, personal, and demographic information.

The final fall 1989 student data profiles were constructed from data obtained from more than 8000 students: 1375 fourth grade students and 1359 fifth grade students; 1236 seventh grade students and 1159 eighth grade students; and 1484 tenth grade students and 1501 eleventh grade students. Student data were not provided by three elementary schools. In one school, student data collection was inappropriate since only primary level children are enrolled. Student data from four state-operated schools serving special populations were not included in the statistical computations. It was deemed inappropriate to compare data generated by these students with norms based on data obtained in the other school sites.

Fall classroom climate and self concept as learner norms were reported as grade level averages in the summative tables and graphs. These norms facilitate comparison of individual school populations with other student groups at similar and different grade levels. The norms also provide baseline information useful for comparing data obtained in subsequent years of the project. Results of the fall 1989 class climate and self concept as learner audits provide additional empirical assessments to be utilized by school leadership teams in revising School Learning Environment Improvement Plans.

Teachers were requested to provide additional information which could not or should not be reported by students. Requested were the names and I.D. numbers of all students by class, information regarding participation in free or reduced lunch programs and pull-out programs, grade repetition, and perceptions regarding students considered "at-risk" of failure or dropping out of school. A listing of factors which teachers believed to be influential in contributing to individual students being "at-risk" were also requested. Data provided by teachers on confidential student information sheets were coded by research personnel.

## Analyses and Results

Tables 1 in Appendix C and Appendix D report classroom climate and academic self-concept item means by scale and grade level. Note that negative item scores are not reversed. In order to highlight the data, positive item means exceeding 3.5 are in boldface type and negative item means 2.5 or higher are underlined. These points on the five point scale are used for estimating more and less positive perceptions of classroom climates and academic self-concepts.

For ease of interpretation, an additional set of tables summarizing findings from the student

generated data will be found in Appendix E. These tables highlight summary findings by indicating significant differences by groups favored.

Classroom Climate Dimensions - Grades 4, 7 and 10

Class Cohesiveness.

Students at all grade levels report that they get to know each other in their classes and that student cooperation is present, though less so in the 7th grade. Students who can't get along cause problems in classes at all three levels. Moreover, students report they tend to engage in classwork with close friends.

Equality in the Classrooms.

Positive student perceptions exist relative to equity in the classroom at all grade levels: everyone has a chance to do well and students are not treated differently because of their race, sex, families or friends. Class favorites, however, are reported at all levels and some students are perceived as feeling left out or ignored in the classes, especially at the lower grade levels.

Curriculum.

Students hold positive views of course objectives and those in the lower grades see their learning as more useful than students in the 10th grade. Student opinions are not reported as being used at any grade level in deciding what will be studied.

Class Difficulty.

Student perceptions of class difficulty are generally positive though some students are reported as not having to work very hard. Fourth grade students report classes as more challenging than do students in the upper grades. Students at all grade levels report that adequate time is taken to explain course material.

Class Communications.

Elementary and junior high students report that students are criticized in front of others and students at all levels perceive contact with parents to be primarily about problems. Fourth graders report that helpful comments are made about class work. Student class discussions are not viewed positively at any level though more appears to exist at the 10th grade level.

Student Evaluation.

While many students report they may not know how they are doing until the end of the

grading period, students at all three grade levels are generally positive in their perceptions of evaluations used in classes. This included the use of different kinds of assignments and tests, fairness in grading, and use of tests based on materials discussed.

Physical Environment.

Classroom space as well as books and materials needed are viewed positively at all levels. Fourth graders reported more positive perceptions regarding classrooms being bright and comfortable. Classwork is generally not displayed for others to see.

Order.

While students in the three grade levels maintain positive perceptions regarding class organization and rules being the same for all students, confusion and student misbehavior were reported for all grades. Junior high/middle school students reported a higher level of student misconduct interfering with learning.

Instruction.

Classes at all levels are associated with positive perceptions of learning with those at the lower levels reflecting more student involvement. Fourth grade students hold more positive views of homework and find presentations of subject matter in their classes to be more interesting.

Class Cultures/ethos.

Students at all levels report they are expected to respect the rights and feelings of others in their classes with students in the fourth grade reporting more trust being present. Elementary and junior high students report more positive perceptions of students and teachers being proud of classwork. Class boredom is more apparent in responses of junior and senior high students.

Student Satisfaction.

Students at all levels like to have class visitors with fourth graders reporting more enjoyment of their classes. No grade level reported strong positive perceptions relative to students looking forward to coming to class. Respondents in all grade levels report some students often being discouraged.

Academic Self-Concepts - Grades 5, 8, and 11

Motivation.

Students at all three levels report positive perceptions of themselves as learners regarding

wanting to do well in school, beginning work on new activities, and willingness to change when they are doing something wrong. Fifth graders feel somewhat better than students in the other levels about school work and, along with 8th graders, like jobs that give them responsibility. Eleventh graders report they will do things without being told several times. Less positive aspects of motivation were associated with eleventh grade students giving up easily and students in all three grade levels reporting they do not do extra work, only what they are told to do. Students at all levels report being hesitant to ask teachers to explain something again.

Task Orientation.

For academic task orientations, the most positive perceptions were getting work done on time and doing their share of group work. Fifth and 8th graders were more positive than 11th graders regarding doing well when working alone and trying to be careful with their work. Students at all levels appear to have difficulty remembering directions, deciding what they need to study, making mistakes because they don't listen, and doing things without thinking. Eleventh grade students report they may copy work from their friends and give up if they don't understand something.

Problem Solving.

Students in all three grades believe they can tell the difference between important and unimportant things in a lesson. Eleventh graders show more confidence in being able to figure things out for themselves. The less positive dimensions of problem solving consistently reported at all grade levels included difficulty in remembering, not understanding what is going on in class, doing poorly on tests, and changing their minds a lot.

Class Membership.

Positive views students at all levels report regarding class membership include getting along with teachers, having lots of friends, ease in getting along and being fair with classmates, as well as seeking to understand others. Fifth graders, more than the others, report that they like to become active in class projects and activities. All levels report disinterest in what others do in class with 11th grade students having difficulty in talking with others and feeling left out.

Empirical estimates of the dimensions of class climate and academic self concept were created by summing responses to the items comprising the various scales. In all cases, negative items were reverse scored before summing.

In order to explore factors associated with differences in the perceptions of students in the different levels, scale means were analyzed by significance tests (ANOVAs or t-tests). As shown in Appendixes C and D, various analyses were conducted using scale means as dependent variables and selected demographic information as independent variables. Independent variables used were

the same for both sets of dependent measures and include gender, race, school-community type, academic performance group, participation in extra-curricular activities, college plans, drop-out intentions, and being identified as at risk. Appendix C contains classroom climate results and Appendix D contains self concept results.

## Classroom Climate Dimensions

### Gender

- Female students at all three grade levels viewed their classes more positively than did male students on eight of the dimensions.

### Race

- Variations observed for perceptions of class climate by race were found at all levels, with more differences existing at the elementary and junior high school levels.
- At the elementary level, black students were more positive on Communications, Environment, Order, and Culture dimensions while white students were more positive on Equality.
- At the junior high school level, black students hold more positive views of Equality, Curriculum, Communication, Instruction, Culture, and Satisfaction.
- At the senior high level, white students view more positively Evaluation, Order, and Culture.

### School-Community Type

- Classroom climate factors were found to differ for urban and rural schools at all grade levels with the most pronounced differences at the senior high level favoring rural schools.
- At the elementary level, rural students viewed their classes more positively on Cohesiveness, Equality, Curriculum, Environment, and Order.
- At the junior high level, urban students viewed more favorably the dimensions of Equality, Curriculum, Communications, Order, Instruction, Culture, and Satisfaction.

### Academic Performance

- Differences were found for eight classroom climate dimensions for the three grade levels when the data were analyzed by student academic performance group. Students in higher performance groups consistently report more positive perceptions of class climates.
- Academic performance group was not found to be a factor associated with Communication and the Physical Environments.

Participation in Extra-Curricular Activities

- Students view their classes more positively if they are also participants in school extra-curricular activities. Only on one dimension, that of Environment, were perceptions not found to differ due to involvement in extra-curricular activities.

Educational Plans

- Perceptions of nine classroom climate dimensions were found to differ between students who intend to go to college and those who do not. In all cases, college-bound students hold more positive perceptions.

Drop-Out

- Students who have not considered dropping out of school consistently reported more positive perceptions of class climates. This generalization holds true for 7th and 10th grade students for all dimensions except Communications.

At-Risk

- Students identified as at risk by teachers reflect less positive perceptions on eight of the dimensions measured. Differences existing are most obvious at the junior and senior high levels.
- Being at risk was not associated with differences for Instruction, Environment, or Communications at any grade level.

## Academic Self Concept

Gender

- For three of the constructs measured, female students at all grade levels hold more positive views of themselves as learners than males. No differences existed at any grade level for student perceptions of themselves as problem solvers.

Race

- Differences in academic self concept between white and black students were found only at the junior and senior high school levels.
- Black junior high students hold more positive views than whites on Motivation, Task Orientation, and Problem solving.
- White senior high students view themselves more favorably on the Class Membership dimension.

Community Type

- Few differences between rural and urban students were observed for the academic self concept measures, though differences found were in favor of urban school students.

Academic Performance

- Consistent differences at the three grade levels were found for the four factors of self concept when the data were analyzed by academic performance group. Higher performance group students consistently view themselves more positively.

Extra-Curricular Activities

- Academic self perceptions were found to differ for those who do and do not participate in school extra-curricular activities. At both the junior and senior high school levels, students involved in extra-curricular report more positive perceptions of themselves as learners.

Educational Plans

- Students who plan to go to college view themselves more positively than students who do not plan to go to college. Differences were found for all four constructs at both grade levels.

Drop-Out

- Students who have never considered dropping out of school consistently report more positive views of themselves as learners.

At-Risk

- Students identified as at risk by teachers at all three grade levels were found to view themselves less positively as learners. Differences observed were consistent across the three student samples.

## CONCLUSIONS

The research and evaluation component was designed to yield information for use in decision making and program development state-wide and in each site, and to provide data appropriate for fundamental research addressing questions regarding school learning environments. A system was developed whereby site-generated data were analyzed and reported

to assist in determining needs, problems, and strengths, as well as to provide empirical indicators of learning climates existing in the base year. Exploratory research into these learning environments reveals that variations observed for student groups and grade levels hold promise for further analyses. While developmental work will continue with the PATS instrumentation to improve internal consistency, the scales have been found to discriminate well with selected independent variables.

Although the main goals of the initial data collection were to provide baseline information for use in establishing fall norms, to stimulate planned change within the school sites, and to assist in state-level program evaluation, several observations can be made from the analyses. These observations are framed conceptually within the three constructs of school climate, classroom climate, and academic self-concepts, which are viewed as behavioral and organizational realities creating the learning environments in the schools. As measured and analyzed here, various empirical estimates for the constructs have been presented as indicators of the normative structures which influenced teaching and learning in the schools during the fall semester of 1989. Generalizations reported are based on aggregated data treating elementary, junior high/middle schools, and senior highs schools as units for analysis. No effort has been made to profile the normative structures existing within individual school contexts during the fall of 1989, though school faculties and administrators have been provided data by which they can make comparisons to determine how their students and school learning environments might differ from those summarized here.

Professional and support personnel in the schools feel confident about instructional programs and administrative leadership, with more positive perceptions of overall school environments existing at the elementary and senior high levels and maintained by older members of the faculty and staff. Classroom context data generated by students provide additional confirmation of the perceived strengths of the instructional programs in the schools. Students rated high curriculum and instruction within their classes and evaluations used to assess learning outcomes. School facilities are also viewed positively by all. Positive perceptions of equal opportunities existing in both school and classroom contexts are indicated. Moreover, racial minorities maintain positive views of equity functioning within school contexts. Female students consistently maintain more positive classroom perceptions and academic self images than males at all grade levels.

As ordered school environments, mixed perceptions are reported. While school personnel report positive views toward student conduct and the enforcement of school rules, student behavior appears to be a perceived problem. Student data confirm the presence of misbehavior interfering with classroom instruction. While expectations regarding student behavior are recognized and reported by both faculty and students, full participation by students in the total life of the schools is not evident. For example, students do not appear to share responsibility for school environments, participate actively in solving school problems, or substantially contribute to decisions about what

will be studied. High faculty expectations regarding achievement for all students are not evident though faculty report that low achievers are provided opportunities to achieve.

As social contexts providing nurturing environments for supporting and esteeming both faculty and students, the schools appear to have normative structures which give priority to the well being of teachers, support personnel, and administrators. Adults in the school report that they feel important, with communications and cooperation existing. Though teachers desire more participation in decision-making, they seem to be committed to the goals of the school, and feel confident that they can solve school problems without outside help. High trust between students and school employees, however, does not appear to be present. Older students, especially, did not report strong views relating to their being trusted. Students at all levels indicate that they do what they are told to do and may give up easily. Students report that they interact primarily with close friends, may feel left out or ignored in class, and that their participation in class discussions is not valued, especially at the lower grade levels. Students report that they do have opportunity to know each other in class and that they cooperate with each other. Overall, student satisfaction with classes during the fall semester was not high, especially at the upper grade levels, and older students did not report strong feelings relative to looking forward to classes.

While the schools tend to be remarkably similar in many features, variations were found between schools and their communities. Elementary schools report more parent and business involvement and appear more ready for parents to visit classrooms. Strong school-home support networks do not exist at any level though elementary schools appear to make more use of printed communications with parents. Students see school and home communications as primarily dealing with classroom problems. Based upon staff data, schools serving urban and rural communities were not found to reflect variations other than on the school-community involvement aspects with schools in urban settings viewed more positively. Differences in student perceptions existing in rural and urban school communities, which are generally not supported by faculty data, suggest that further analyses should explore relationships existing between perceptions of school employees and students.

Student academic self-images were found to be somewhat stable over the grade levels with selected variations observed. Self perceptions associated with developmental patterns of learners at different grade levels are, to some extent, reflected in the data. Student data also suggest that learning environment norms and practices reinforce learner perceptions associated with being female and with strong identification with the academic and social missions of formal schooling. Students who do well in school consistently report more positive perceptions of themselves as learners. Variations of self concepts as learners by race at the junior high level indicate the presence of factors in school environments which may be especially influential in building self esteem of minorities, especially at the junior high school level. This dimension needs additional study.

Student perceptions of classroom climates during the fall of 1989 were found to differ due to several factors, including gender, race, success as a student, participation in school activities,

and community type. Students who identify with the processes and structures of schools and classroom were found to consistently report more positive perceptions. It is obvious that students with academic orientations view classes more favorably. Thus classrooms at all levels appear to function as social systems primarily focusing on goals, processes, and interactions congruent with aspirations and needs which can be labeled as academic and social. Moreover, student self-images of themselves as learners are obviously reinforced within classroom contexts at all levels. The model of classrooms conveyed in these data reflect normative structures existing at all levels which nurture and support social interactions and self perceptions generally thought to be congruent with school success.

Whether the realities of school learning environments and learner perceptions measured during the fall of 1989 will be similar at later points in time is unknown. Data generated in the Spring of 1990, and in subsequent years, will be utilized in answering questions relative to changes and stability in patterns over time. School improvement plans being developed and implemented to produce changes in learning environments as well as enhance the self-images of all learners may indeed yield outcomes which differ from those observed initially. The organizational and behavioral patterns reflected in these initial data, however, may have consistency and stability difficult to modify.

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## Appendix A

## State Training Tables

Table 1

Demographic Information for Participants in PATS State Level Training (June and September, 1989)

| Variable | Category | N June | Pct June | N Sept | Pct Sept |
|---|---|---|---|---|---|
| Education Experience | | | | | |
| | (1) 1-5 years | 13 | 10 | 6 | 17 |
| | (2) 6-10 years | 28 | 22 | 3 | 8 |
| | (3) 11-15 years | 24 | 19 | 5 | 14 |
| | (4) 16-20 years | 38 | 30 | 9 | 25 |
| | (5) more than 20 years | 26 | 20 | 13 | 36 |
| Education | | | | | |
| | (1) Bachelors | 32 | 25 | 4 | 11 |
| | (2) Masters | 43 | 33 | 8 | 22 |
| | (3) Masters plus | 48 | 37 | 21 | 58 |
| | (4) Educational Specialist | 6 | 5 | 1 | 3 |
| | (5) Doctorate | | | 2 | 6 |
| Age Group | | | | | |
| | (1) 29 years or less | 9 | | 5 | 13 |
| | (2) 30-39 | 40 | 38 | 9 | 23 |
| | (3) 40-49 | 56 | 62 | 14 | 36 |
| | (4) 50-59 | 23 | | 8 | 21 |
| | (5) 60 or older | 1 | | | |
| Gender | | | | | |
| | (1) female | 90 | 70 | 18 | 46 |
| | (2) male | 39 | 30 | 16 | 41 |
| Race | | | | | |
| | (1) Black | 7 | 6 | 6 | 15 |
| | (2) White | 113 | 94 | 28 | 72 |
| | (3) Other | | | 2 | 5 |
| School level | | | | | |
| | (1) Elementary | 68 | 53 | 6 | 15 |
| | (2) Middle/Junior High | 28 | 22 | 13 | 33 |
| | (3) Senior High | 33 | 26 | 8 | 21 |
| | (4) Other | | | 8 | 21 |
| School population | | | | | |
| | (1) Rural | 50 | 39 | 4 | 10 |
| | (2) Small town/village | 48 | 37 | 7 | 18 |
| | (3) Suburban | 27 | 21 | 11 | 28 |
| | (4) Urban/fringe | | | 5 | 13 |
| | (5) Urban/inner | | | 4 | 10 |
| Professional assignment- 88-89 | | | | | |
| | (1) Administrator | 38 | 30 | 13 | 33 |
| | (2) Teacher or | 74 | 57 | 12 | 31 |
| | (3) Non-teaching specialist (counselor, librarian) | 12 | 9 | 7 | 18 |
| | (4) Other | 3 | 2 | 7 | 18 |



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Table 1 (continued)

Demographic Information for Participants in PATS State Level Training (June and September, 1989)

| Variable | Category | N June | Pct June | N Sept | Pct Sept |
|---|---|---|---|---|---|
| Undergraduate major | | | | | |
| | (1) Kindergarten, Elementary, | 48 | 37 | 7 | 18 |
| | (2) Special Education | 5 | 4 | 5 | 13 |
| | (3) English-Language Art | 18 | 14 | 6 | 15 |
| | (4) Social studies | 13 | 10 | 6 | 15 |
| | (5) Math | 6 | 5 | 1 | 3 |
| | (6) Natural Sciences | 8 | 6 | 4 | 10 |
| | (7) Health, Physical Education, Recreation | 12 | 9 | 2 | 5 |
| | (8) Music-Art | 5 | 4 | | |
| | (9) Industrial Arts- Vo-Tech | 3 | 2 | | |
| | (10) Home Economics | 4 | 3 | | |
| | (11) Curriculum and Instruction | | | 1 | 3 |
| | (12) Educational Administration and Supervision | 1 | 1 | | |
| | (13) Guidance and Counseling | | | | |
| | (14) Psychology | 1 | 1 | 1 | 3 |
| | (15) Business Educ/ Administration | 8 | 6 | 1 | 3 |
| | (16) Foreign Language | | | 1 | 3 |
| Graduate Major | | | | | |
| | (1) Kindergarten, Elementary Education, | 13 | 10 | 1 | 3 |
| | (2) Special Education | 5 | 4 | 5 | 13 |
| | (3) English-Language Arts | 4 | 3 | 1 | 3 |
| | (4) Social studies- History | | | | |
| | (5) Math | 1 | 1 | | |
| | (6) Natural Sciences | 2 | 2 | | |
| | (7) Health, Physical Education, Recreation | 2 | 2 | | |
| | (8) Music-Art | 1 | 1 | 1 | 3 |
| | (9) Industrial Arts- Vo- Tech | 1 | 1 | | |
| | (10) Home Economics | | | | |
| | (11) Curriculum and Instruction | 7 | 5 | 2 | 5 |
| | (12) Educational Administration and Supervision | 44 | 34 | 10 | 26 |
| | (13) Guidance and Counseling | 16 | 12 | 5 | 13 |
| | (14) Psychology. | | | 1 | 3 |
| | (15) Business Educa/ Administration | 2 | 2 | 1 | 3 |
| | (16) Foreign Language | | | 3 | 8 |

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Table 1 (continued)

Demographic Information for Participants in PATS State Level Training (June and September, 1989)

| Variable | Category | N June | Pct June | N Sept | Pct Sept |
|---|---|---|---|---|---|
| Undergraduate Institution | | | | | |
| | (1) TN State Institution | 85 | 66 | 18 | 46 |
| | (2) TN Private Institution | 21 | 16 | 8 | 21 |
| | (3) Non-TN State Institution | 5 | 4 | 3 | 8 |
| | (4) Non-TN Private Institution | 10 | 8 | 2 | 5 |
| Graduate Institution | | | | | |
| | (1) TN State Institution | 76 | 59 | 25 | 64 |
| | (2) TN Private Institution | 7 | 5 | 1 | 3 |
| | (3) Non-TN State Institution | 7 | 5 | 9 | 23 |
| | (4) Non-TN Private Institution | 5 | 4 | | |
| Level of students involved with in 88-89 | | | | | |
| | (1) Primary | 28 | 22 | 8 | 21 |
| | (2) Middle/Intermediate/Junior High | 57 | 44 | 6 | 15 |
| | (3) Senior High | 33 | 26 | 9 | 23 |
| | (4) Other | 1 | 1 | 10 | 26 |

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Table 2

Attitudes and Perceptions of School Conditions, PATS State-Level Training, June and September, 1989

| | | | June | | | | September | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| No | Item | Dir | X | SD | Rank | Pct* | X | SD | Rank | Pct* |
| 1 | Teachers in my school are evaluated fairly. | + | 4.30 | 0.78 | 3.5 | 79 | 4.28 | 1.59 | 1.5 | 47 |
| 2 | The principal lets staff members know what is expected of them. | + | 4.26 | 0.78 | 5.0 | 81 | 3.80 | 0.98 | 9.5 | 62 |
| 3 | The school administrator's behavior toward the staff is supportive and encouraging. | + | 4.43 | 0.82 | 2.0 | 85 | 3.92 | 1.16 | 6.5 | 67 |
| 4 | I am satisfied with my teaching salary. | + | 2.08 | 1.06 | 23.0 | 9 | 3.05 | 1.89 | 21.0 | 28 |
| 5 | The level of student misbehavior in my school interfers with teaching. | - | 3.20 | 1.39 | 19.0 | 47 | 3.61 | 1.07 | 17.5 | 53 |
| 6 | Teachers participate in making important educational decisions in my school. | + | 3.46 | 0.97 | 18.0 | 50 | 2.97 | 1.42 | 22.0 | 21 |
| 7 | I receive a great deal of support from parents for the work I do. | + | 2.91 | 1.18 | 20.0 | 31 | 3.21 | 1.70 | 20.0 | 31 |
| 8 | Necessary materials are available as needed by the staff. | + | 3.64 | 1.11 | 15.0 | 57 | 3.64 | 1.18 | 15.0 | 59 |
| 9 | The principal does a poor job of getting resources for this school. | - | 4.21 | 1.16 | 6.0 | 76 | 3.50 | 1.81 | 19.0 | 49 |
| 10 | Routine duties and paperwork interfere with my job of teaching. | - | 2.51 | 1.08 | 22.0 | 15 | 2.82 | 1.02 | 23.0 | 23 |
| 11 | My principal enforces school rules for student conduct and backs me up when I need it. | + | 4.45 | 0.84 | 1.0 | 85 | 4.00 | 1.00 | 4.5 | 69 |
| 12 | The principal talks with me frequently about my instructional practices. | + | 3.58 | 0.92 | 16.0 | 53 | 3.62 | 1.71 | 16.0 | 41 |
| 13 | Rules for student behavior are consistently enforced in this school. | + | 3.92 | 0.98 | 11.0 | 69 | 3.77 | 0.81 | 11.0 | 64 |
| 14 | Most of my colleagues share my beliefs about the central mission of the school. | + | 3.91 | 0.87 | 12.0 | 71 | 3.61 | 0.79 | 17.5 | 57 |
| 15 | The principal knows what kind of school he/she wants and has communicated it to the staff. | + | 4.30 | 0.78 | 3.5 | 85 | 4.00 | 1.19 | 4.5 | 64 |
| 16 | There is a great deal of cooperative effort among staff members. | + | 3.82 | 0.98 | 13.0 | 60 | 3.69 | 1.13 | 14.0 | 56 |
| 17 | In my school, staff members are recognized for a job well done. | + | 3.98 | 0.89 | 10.0 | 71 | 3.80 | 1.17 | 9.5 | 54 |
| 18 | In my school, I have to follow rules that conflict with my best judgment. | - | 3.99 | 1.17 | 9.0 | 73 | 3.74 | 1.48 | 12.5 | 67 |
| 19 | I am satisfied with my class sizes. | + | 2.89 | 1.39 | 21.0 | 33 | 3.92 | 1.77 | 6.5 | 54 |
| 20 | I make an effort to coordinate the content of my courses with other teachers. | + | 3.70 | 0.96 | 14.0 | 55 | 4.28 | 1.59 | 1.5 | 67 |
| 21 | Goals and priorities at my school are clear. | + | 4.02 | 0.94 | 8.0 | 71 | 3.74 | 1.68 | 12.5 | 54 |
| 22 | Student tardiness and class cutting in my schools interferes with teaching. | - | 3.49 | 1.39 | 17.0 | 50 | 3.86 | 2.12 | 8.0 | 59 |
| 23 | I sometimes feel it is a waste of time to try to do my best as a teacher. | - | 4.05 | 1.26 | 7.0 | 72 | 4.03 | 1.92 | 3.0 | 62 |

* Percent of respondents indicating agreement (4) and strong agreement (5)

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Table 3

Pre and Post Mean Ratings, Ranking, and Percent Agreement of Self Esteem Strategies.

PATS Project State Level Training, June and September, 1989

| | June | | | | | | September | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre | | | Post | | | Pre | | | Post | | |
| | X | Rank | Pct* | X | Rank | Pct* | X | Rank | Pct* | X | Rank | Pct* |
| 1 encourage co operation within the classroom | 4 68 | 11 0 | 93 | 4 59 | 17 0 | 91 | 4 59 | 10 5 | 90 | 4 40 | 21 0 | 85 |
| 2 encourage students to participate in classroom decision-making | 4 23 | 22 0 | 84 | 4 27 | 22 0 | 85 | 4 40 | 19 0 | 87 | 4 39 | 22 0 | 87 |
| 3 listen to students and try to show them you care | 4 89 | 2 0 | 93 | 4 80 | 6 0 | 95 | 4 90 | 2 5 | 100 | 4 80 | 5 0 | 97 |
| 4 recognize students who participate in extra curricular activities | 4 05 | 23 0 | 76 | 4 16 | 23 0 | 80 | 4 18 | 24 0 | 87 | 4 05 | 23 0 | 74 |
| 5 use positive, non verbal communication | 4 69 | 10 0 | 89 | 4 72 | 12 5 | 95 | 4 77 | 5 0 | 95 | 4 77 | 6 0 | 100 |
| 6 encourage others to be aware of the feelings of students | 4 64 | 13 0 | 90 | 4 69 | 14 0 | 93 | 4 41 | 18 0 | 92 | 4 67 | 13 5 | 97 |
| 7 encourage students to participate in extra curricular activities | 4 03 | 24 0 | 75 | 4 11 | 24 0 | 77 | 4 23 | 23 0 | 87 | 4 00 | 24 0 | 74 |
| 8 let students know that you trust them | 4 64 | 13 0 | 91 | 4 63 | 15 0 | 92 | 4 44 | 16 5 | 85 | 4 56 | 17 0 | 98 |
| 9 relay positive comments about students to their parents | 4 73 | 8 0 | 95 | 4 72 | 12 5 | 95 | 4 39 | 20 5 | 82 | 4 62 | 15 0 | 95 |
| 10 write constructive comments on students' work | 4 58 | 18 0 | 93 | 4 56 | 18 5 | 95 | 4 54 | 12 5 | 95 | 4 67 | 13 5 | 92 |
| 11 make positive comments to students | 4 86 | 3 0 | 97 | 4 89 | 1 0 | 98 | 4 90 | 2 5 | 100 | 4 82 | 4 0 | 97 |
| 12 be a positive role model for students | 4 90 | 1 0 | 96 | 4 82 | 3 5 | 96 | 4 92 | 1 0 | 98 | 4 97 | 1 0 | 100 |
| 13 tell students about your own interests | 3 84 | 25 0 | 69 | 4 10 | 25 0 | 80 | 3 85 | 25 0 | 70 | 3 90 | 25 0 | 69 |
| 14 take adequate time to explain concepts students don't understand | 4 71 | 9 0 | 94 | 4 78 | 7 0 | 97 | 4 64 | 9 0 | 95 | 4 69 | 11 0 | 95 |
| 15 remember special things about students, | 4 34 | 21 0 | 84 | 4 43 | 21 0 | 90 | 4 26 | 22 0 | 90 | 4 49 | 19 5 | 94 |
| 16 help students learn respect for the rights and feelings of others | 4 84 | 4 0 | 97 | 4 88 | 2 0 | 97 | 4 74 | 6 0 | 95 | 4 69 | 11 0 | 97 |
| 17 recognize and acknowledge students outside of class time | 4 49 | 19 5 | 91 | 4 56 | 18 5 | 91 | 4 46 | 15 0 | 95 | 4 56 | 17 0 | 98 |
| 18 avoid criticizing students in front of their peers | 4 59 | 16 5 | 91 | 4 76 | 9 0 | 96 | 4 59 | 10 5 | 95 | 4 69 | 11 0 | 95 |
| 19 encourage positive remarks from one student to another | 4 59 | 16 5 | 93 | 4 73 | 11 0 | 97 | 4 44 | 16 5 | 92 | 4 56 | 17 0 | 98 |
| 20 help students build on their strengths | 4 74 | 7 0 | 95 | 4 82 | 3 5 | 99 | 4 72 | 7 0 | 100 | 4 87 | 3 0 | 100 |
| 21 give students opportunities to show peers that they can do well | 4 62 | 15 0 | 92 | 4 75 | 10 0 | 97 | 4 54 | 12 5 | 95 | 4 74 | 7 0 | 97 |
| 22 provide students with opportunities for success | 4 82 | 5 0 | 95 | 4 81 | 5 0 | 97 | 4 85 | 4 0 | 97 | 4 92 | 2 0 | 100 |
| 23 develop a sense of humor with students | 4 49 | 19 5 | 88 | 4 55 | 20 0 | 95 | 4 39 | 20 5 | 90 | 4 49 | 19 5 | 90 |
| 24 recognize and acknowledge students' feelings | 4 77 | 6 0 | 95 | 4 77 | 8 0 | 95 | 4 67 | 8 0 | 95 | 4 72 | 8 5 | 100 |
| 25 discourage negative remarks from one student to another | 4 64 | 13 0 | 91 | 4 62 | 16 0 | 90 | 4 51 | 14 0 | 90 | 4 72 | 8 5 | 98 |

* Percent of respondents indicating agreement (4) and strong agreement (5)



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## Appendix B

## School Climate Tables

Table 1

Percent of Agreement by School Levels- Tennessee School Climate Inventory Items*

| No. | Scales and Items | Sub | Dir | El | Jr | Sr | Ave |
|---|---|---|---|---|---|---|---|
| | SCALE 1: ORDER | | | | | | |
| 13. | Rules for student behavior are consistently enforced. | 1 | P | 55 | 50 | 48 | 51 |
| 23. | Student discipline is administered fairly and appropriately. | 1 | P | 58 | 50 | 50 | 53 |
| 25. | Student misbehavior interferes with teaching. | 1 | N | 46 | 53 | 36 | 45 |
| 30. | Student tardiness and absence is a problem. | 1 | N | 30 | 33 | 51 | 38 |
| 39. | The school is a safe and secure place in which to work. | 1 | P | 81 | 65 | 72 | 73 |
| 44. | Joint responsibilities for student discipline exists. | 1 | P | 42 | 29 | 33 | 35 |
| 46. | Student behavior is generally positive in this school. | 1 | P | 49 | 47 | 58 | 51 |
| | SCALE 2: LEADERSHIP | | | | | | |
| 8. | The administration communicates that students can learn. | 2 | P | 75 | 55 | 68 | 66 |
| 20. | The administration encourages teachers to be creative. | 2 | P | 72 | 53 | 59 | 61 |
| 34. | The principal provides feedback on staff performance. | 2 | P | 59 | 50 | 61 | 57 |
| 36. | The administration does not protect instructional time. | 2 | N | 28 | 14 | 25 | 22 |
| 42. | The principal provides strong instructional leadership. | 2 | P | 61 | 48 | 57 | 55 |
| 45. | School goals are reviewed and updated. | 2 | P | 51 | 37 | 52 | 47 |
| 47. | The principal is highly visible throughout the school. | 2 | P | 74 | 58 | 65 | 66 |
| | SCALE 3: ENVIRONMENT | | | | | | |
| 7. | Faculty and staff feel they are important. | 3 | P | 71 | 56 | 64 | 64 |
| 9. | Varied learning environments are provided. | 3 | P | 52 | 39 | 46 | 46 |
| 10. | The school building is neat, bright, clean, and comfortable. | 3 | P | 74 | 51 | 41 | 56 |
| 14. | Employees and students show respect for each other. | 3 | P | 49 | 38 | 42 | 43 |
| 29. | An atmosphere of trust exist. | 3 | P | 45 | 32 | 38 | 38 |
| 38. | Teachers reflect pride in this school and its students. | 3 | P | 68 | 54 | 62 | 61 |
| 49. | People in this school really care about each other. | 3 | P | 62 | 51 | 51 | 55 |
| | SCALE 4: INVOLVEMENT | | | | | | |
| 5. | Community businesses are active in the school. | 4 | P | 42 | 13 | 35 | 30 |
| 11. | Parents are involved in a home-school support network. | 4 | P | 30 | 15 | 19 | 21 |
| 12. | Parents are treated courteously. | 4 | P | 83 | 66 | 77 | 75 |
| 18. | Parents are invited to serve on school advisory committees. | 4 | P | 51 | 23 | 37 | 37 |
| 19. | Parent volunteers are used wherever possible. | 4 | P | 60 | 25 | 26 | 37 |
| 32. | A school newsletter or bulletin communicates information. | 4 | P | 59 | 35 | 39 | 44 |
| 37. | Parents are invited to visit classrooms. | 4 | P | 49 | 34 | 33 | 39 |

Table 1 (cont)

Percent of Agreement by School Levels- School Climate Items

| No. | Scales and Items | Sub | Dir | El | Jr | Sr | Ave |
|---|---|---|---|---|---|---|---|
| | SCALE 5: INSTRUCTION | | | | | | |
| 4. | Teachers use a variety of teaching strategies or models. | 5 | P | 71 | 65 | 75 | 70 |
| 15. | Teachers sequence learning so that students experience success. | 5 | P | 61 | 42 | 51 | 51 |
| 24. | Students have opportunities to develop higher-order skills. | 5 | P | 56 | 54 | 64 | 58 |
| 33. | Curriculum guides insure coverage of subject content. | 5 | P | 69 | 55 | 63 | 62 |
| 35. | Appropriate evaluation methods used to assess learning. | 5 | P | 70 | 69 | 69 | 69 |
| 41. | Pull out programs interfere with basic skills instruction. | 5 | N | 30 | 17 | 26 | 24 |
| 48. | Teachers use a wide range of teaching materials. | 5 | P | 71 | 61 | 67 | 66 |
| | SCALE 6: EXPECTATIONS | | | | | | |
| 2. | Low achieving students are given opportunity to succeed. | 6 | P | 63 | 55 | 56 | 58 |
| 3. | School rules and expectations defined and communicated. | 6 | P | 65 | 63 | 69 | 66 |
| 17. | Students share responsibility for the school environment. | 6 | P | 50 | 35 | 21 | 35 |
| 21. | Students are held responsible for their actions. | 6 | P | 60 | 69 | 58 | 62 |
| 22. | Many students are not expected to master basic skills. | 6 | N | 25 | 25 | 20 | 23 |
| 27. | Many students do not participate in school activities. | 6 | N | 16 | 18 | 19 | 18 |
| 43. | Teachers hold high expectations for students. | 6 | P | 54 | 43 | 49 | 49 |
| | SCALE 7: COLLABORATION | | | | | | |
| 1. | Faculty share a sense of commitment to school's goals. | 7 | P | 68 | 61 | 64 | 64 |
| 6. | Students are encouraged to help others with problems. | 7 | P | 42 | 32 | 33 | 36 |
| 16. | Teacher communication is encouraged. | 7 | P | 62 | 50 | 54 | 55 |
| 26. | Students participate in solving the school problems. | 7 | P | 23 | 19 | 30 | 24 |
| 28. | Cooperation exists among the faculty and staff. | 7 | P | 59 | 49 | 53 | 54 |
| 31. | Teachers need to participate more in school decision-making. | 7 | N | 49 | 53 | 52 | 51 |
| 40. | Most problems can be solved without outside help. | 7 | P | 71 | 61 | 59 | 64 |

* Some items were shortened from the original items

Percentages are a total of respondents marking agreement (4) and strong agreement (5).

Table 2

School Climate Dimensions by School Level

| Dimension | Level | N | X | F | p< | Pairs |
|---|---|---|---|---|---|---|
| Order | Elem (1) | 663 | 24.31 | 15.29 | .001 | 2 3 |
| | Junior (2) | 199 | 22.57 | | | 1 |
| | Senior (3) | 543 | 22.72 | | | 1 |
| Leadership | Elem (1) | 663 | 26.88 | 16.37 | .001 | 2 3 |
| | Junior (2) | 199 | 24.79 | | | 1 |
| | Senior (3) | 543 | 25.44 | | | 1 |
| Environment | Elem (1) | 663 | 26.63 | 50.90 | .001 | 2 3 |
| | Junior (2) | 199 | 23.75 | | | 1 |
| | Senior (3) | 543 | 23.74 | | | 1 |
| Involvement | Elem (1) | 663 | 25.28 | 106.43 | .001 | 2 3 |
| | Junior (2) | 199 | 21.23 | | | 1 |
| | Senior (3) | 543 | 21.32 | | | 1 |
| Instruction | Elem (1) | 663 | 26.46 | 18.63 | .001 | 2 3 |
| | Junior (2) | 199 | 24.85 | | | 1 |
| | Senior (3) | 543 | 25.33 | | | 1 |
| Expectation | Elem (1) | 663 | 25.97 | 22.24 | .001 | 2 3 |
| | Junior (2) | 199 | 24.64 | | | 1 |
| | Senior (3) | 543 | 24.18 | | | 1 |
| Collaboration | Elem (1) | 663 | 24.55 | 18.74 | .001 | 2 3 |
| | Junior (2) | 199 | 22.73 | | | 1 |
| | Senior (3) | 543 | 23.11 | | | 1 |

Table 3

School Climate Dimensions by Community Type

| Dimension | Type | N | X | t | p< |
|---|---|---|---|---|---|
| Order | Rural | 1147 | 23.42 | -0.63 | |
| | Urban | 253 | 23.66 | | |
| Leadership | Rural | 1147 | 26.01 | 0.54 | |
| | Urban | 253 | 25.81 | | |
| Environment | Rural | 1147 | 25.04 | -0.83 | |
| | Urban | 253 | 25.36 | | |
| Involvement | Rural | 1147 | 22.90 | -4.50 | .001 |
| | Urban | 253 | 24.61 | | |
| Instruction | Rural | 1147 | 25.80 | -0.68 | |
| | Urban | 253 | 25.99 | | |
| Expectation | Rural | 1147 | 25.04 | -0.14 | |
| | Urban | 253 | 25.09 | | |
| Collaboration | Rural | 1147 | 23.68 | -0.91 | |
| | Urban | 253 | 23.98 | | |

Table 4

School Climate Dimensions by Age Group

| Dimension | Group | N | X | F | p< | Pairs |
|---|---|---|---|---|---|---|
| Order | <30 (1) | 149 | 22.43 | 5.56 | .001 | 2 4 |
| | 30-39 (2) | 391 | 24.04 | | | 1 |
| | 40-49 (3) | 451 | 23.35 | | | |
| | >49 (4) | 249 | 24.56 | | | 1 |
| Leadership | <30 (1) | 149 | 25.70 | 1.84 | | |
| | 30-39 (2) | 391 | 26.40 | | | |
| | 40-49 (3) | 451 | 26.20 | | | |
| | >49 (4) | 249 | 26.95 | | | |
| Environment | <30 (1) | 149 | 24.75 | 6.18 | .001 | |
| | 30-39 (2) | 391 | 25.71 | | | |
| | 40-49 (3) | 451 | 24.65 | | | 4 |
| | >49 (4) | 249 | 26.32 | | | 3 |
| Involvement | <30 (1) | 149 | 22.46 | 7.01 | .001 | 4 |
| | 30-39 (2) | 391 | 23.38 | | | |
| | 40-49 (3) | 451 | 22.59 | | | 4 |
| | >49 (4) | 249 | 24.39 | | | 1 3 |
| Instruction | <30 (1) | 149 | 25.26 | 7.05 | .001 | 4 |
| | 30-39 (2) | 391 | 25.96 | | | 4 |
| | 40-49 (3) | 451 | 25.62 | | | 4 |
| | >49 (4) | 249 | 26.87 | | | 1 2 3 |
| Expectation | <30 (1) | 149 | 24.68 | 3.52 | .050 | |
| | 30-39 (2) | 391 | 25.77 | | | |
| | 40-49 (3) | 451 | 24.92 | | | |
| | >49 (4) | 249 | 25.69 | | | |
| Collaboration | <30 (1) | 149 | 23.54 | 3.10 | .050 | |
| | 30-39 (2) | 391 | 24.15 | | | |
| | 40-49 (3) | 451 | 23.69 | | | |
| | >49 (4) | 249 | 24.70 | | | |

Appendix C

Classroom Climate Tables

Table 1
Tennessee Classroom Climate Item Means by Grade Level, Fall '89

| No | Item | Dir | Grade 4 | Grade 7 | Grade 10 |
|---|---|---|---|---|---|
| | **Cohesiveness** | | | | |
| 3. | Students get to know each other in this class. | P | **4.51** | **3.97** | **3.85** |
| 9. | Students who can't get along cause problems in the class. | N | 3.45 | 3.37 | 3.01 |
| 11. | Students generally work with their close friends. | N | 3.37 | 3.17 | 3.56 |
| 34. | Students cooperate with each other. | P | **3.65** | 3.26 | **3.63** |
| | **Equality** | | | | |
| 8. | Everyone has a chance to do well in this class. | P | **4.53** | **4.15** | **4.13** |
| 17. | Certain students are class favorites. | N | 2.83 | 3.09 | 2.85 |
| 20. | Students are treated differently (family, friends, race, sex). | N | 2.12 | 2.10 | 1.79 |
| 39. | Some students feel left out or ignored. | N | 2.62 | 2.78 | 2.43 |
| | **Curriculum** | | | | |
| 10. | The objectives of this class are clear and specific. | P | **4.11** | **3.58** | **3.65** |
| 19. | This class is a waste of time. | N | 1.86 | 2.12 | 2.15 |
| 27. | Student opinions are used in deciding what will be studied. | P | 2.44 | 2.31 | 2.35 |
| 44. | Students are learning things in this class which will be useful to them. | P | **4.36** | **3.87** | 3.00 |
| | **Difficulty** | | | | |
| 4. | Enough time is taken to explain things students don't understand. | P | **4.10** | **3.80** | **3.64** |
| 12. | Activities in this class are challenging. | P | **3.92** | 3.26 | 3.26 |
| 24. | The subject taught in this class is hard. | N | 2.67 | 2.77 | 2.83 |
| 36. | Students don't have to work very hard in this class. | N | 2.48 | 2.49 | 2.57 |
| | **Communication** | | | | |
| 16. | Students are criticized in front of others. | N | 2.73 | 2.73 | 2.36 |
| 18. | Student discussions are important in this class. | P | 3.12 | 3.39 | 3.43 |
| 28. | Helpful comments are made on students' work. | P | **3.79** | 3.38 | 3.34 |
| 29. | When parents are contacted about students, it is about a problem. | N | 3.40 | 3.43 | 3.48 |
| | **Evaluation** | | | | |
| 22. | Students don't know how they are doing until end of grading period. | N | 2.85 | 2.91 | 2.57 |
| 33. | Grades are based on different kinds of assignments and tests. | P | **4.08** | **3.79** | **4.02** |
| 40. | Student work is graded fairly. | P | **4.10** | **4.07** | **3.97** |
| 43. | Tests and quizzes are based on the materials discussed in class. | P | **4.26** | **4.17** | **4.33** |

Table 1 (continued)

Tennessee Classroom Climate Inventory Item Means by Grade Level, Fall '89

| No | Item | Dir | Grade 4 | Grade 7 | Grade 10 |
|---|---|---|---|---|---|
| **Physical Environment** | | | | | |
| 2. | Books and materials students need are available. | P | **4.32** | **4.02** | **3.97** |
| 25. | Work from this class is displayed for others to see. | P | 3.12 | 2.63 | 2.17 |
| 32. | There is enough space for students to work in groups or by themselves. | P | **3.91** | **3.63** | **3.74** |
| 35. | The room is bright and comfortable. | P | **3.89** | 3.22 | 3.12 |
| **Order** | | | | | |
| 5. | There is a lot of confusion in this class. | N | 2.85 | 2.69 | 2.69 |
| 21. | Student misbehavior in this class interferes with learning. | N | 3.40 | 3.53 | 3.09 |
| 31. | Activities in this class are well organized. | P | **4.12** | 3.46 | **3.50** |
| 42. | Rules in this class are the same for all students at all times. | P | **4.44** | **4.19** | **4.25** |
| **Instruction** | | | | | |
| 1. | Students learn a lot in this class. | P | **4.24** | **3.64** | **3.56** |
| 14. | Homework for this class helps students understand the material better. | P | **4.21** | 3.29 | 3.30 |
| 23. | This subject is presented in interesting ways. | P | **3.71** | 3.11 | 3.03 |
| 41. | Most students become involved in class activities. | P | **4.09** | **3.52** | 3.36 |
| **Culture** | | | | | |
| 6. | Students and the teacher are proud of the work done in this class. | P | **4.04** | 3.42 | 3.45 |
| 13. | This class is boring. | N | 2.18 | 2.81 | 2.91 |
| 26. | Students are expected to respect the rights and feelings of others. | P | **3.74** | **4.03** | **4.19** |
| 30. | Students are trusted in this class. | P | **3.83** | 3.31 | 3.48 |
| **Satisfaction** | | | | | |
| 7. | Students enjoy this class. | P | **3.81** | 3.04 | 3.14 |
| 15. | Students like to have visitors in this class. | P | **4.21** | **3.66** | **3.54** |
| 37. | Students in this class often become discouraged. | N | 2.66 | 2.82 | 2.91 |
| 38. | Students look forward to coming to this class. | P | **3.65** | 2.76 | 2.78 |

Table 2

Classroom Climate Dimensions by Sex

| | | 4 | | | | 7 | | | | 10 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | X | t | p< | N | X | t | p< | N | X | t | p< |
| Cohesiveness | Male | 585 | 13.22 | .70 | .050 | 500 | 12.62 | .10 | | 562 | 12.90 | .39 | |
| | Female | 542 | 13.35 | | | 493 | 12.67 | | | 589 | 12.98 | | |
| Equality | Male | 585 | 14.43 | 15.56 | .010 | 500 | 13.95 | 6.24 | .050 | 562 | 14.92 | 11.79 | .001 |
| | Female | 542 | 15.24 | | | 493 | 14.48 | | | 589 | 15.56 | | |
| Curriculum | Male | 585 | 14.81 | 7.26 | .010 | 500 | 13.30 | 7.61 | .010 | 562 | 13.11 | 21.13 | .001 |
| | Female | 542 | 15.26 | | | 493 | 13.83 | | | 589 | 13.96 | | |
| Difficulty | Male | 585 | 14.46 | 20.55 | .001 | 500 | 13.60 | 10.72 | .001 | 562 | 13.62 | | |
| | Female | 542 | 15.18 | | | 493 | 14.05 | | | 589 | 14.00 | 9.11 | .005 |
| Communications | Male | 585 | 12.12 | 1.61 | | 500 | 11.97 | .38 | | 562 | 11.41 | | |
| | Female | 542 | 12.32 | | | 493 | 12.06 | | | 589 | 11.87 | | |
| Evaluation | Male | 585 | 15.40 | 3.45 | | 500 | 14.60 | 26.84 | .001 | 562 | 15.58 | 24.06 | .001 |
| | Female | 542 | 15.75 | | | 493 | 15.60 | | | 589 | 16.43 | | |
| Environment | Male | 585 | 15.10 | 2.51 | | 500 | 13.37 | 1.67 | | 562 | 13.14 | .010 | |
| | Female | 542 | 15.38 | | | 493 | 13.61 | | | 589 | 13.15 | | |
| Order | Male | 585 | 14.08 | 9.29 | .010 | 500 | 13.21 | 8.35 | .005 | 562 | 13.73 | 8.92 | .005 |
| | Female | 542 | 14.58 | | | 493 | 13.70 | | | 589 | 14.21 | | |
| Instruction | White | 981 | 16.20 | .23 | | 804 | 13.35 | 29.47 | .001 | 1047 | 13.33 | .82 | |
| | Black | 170 | 16.32 | | | 199 | 14.60 | | | 111 | 13.06 | | |
| Culture | Male | 585 | 15.18 | 4.02 | .050 | 500 | 13.76 | 10.51 | .001 | 562 | 13.71 | 22.52 | .001 |
| | Female | 542 | 15.56 | | | 493 | 14.39 | | | 589 | 15.54 | | |
| Satisfaction | Male | 585 | 14.71 | 10.37 | .010 | 500 | 12.54 | 4.15 | .050 | 562 | 12.27 | 10.95 | .001 |
| | Female | 542 | 15.29 | | | 493 | 12.89 | | | 589 | 12.79 | | |

Table 3

Classroom Climate Dimensions by Race

| | | 4 | | | | 7 | | | | 10 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | X | t | p< | N | X | t | p< | N | X | t | p< |
| Cohesiveness | White | 981 | 13.32 | 3.51 | | 804 | 12.66 | 0.63 | | 1047 | 12.92 | 0.40 | |
| | Black | 170 | 12.93 | | | 199 | 12.51 | | | 111 | 13.07 | | |
| Equality | White | 981 | 14.95 | 10.18 | .050 | 804 | 14.08 | 4.14 | .050 | 1047 | 15.26 | 0.88 | |
| | Black | 170 | 14.04 | | | 199 | 14.26 | | | 111 | 14.96 | | |
| Curriculum | White | 981 | 15.05 | 2.29 | | 804 | 13.33 | 26.79 | .010 | 1047 | 13.56 | 0.35 | |
| | Black | 170 | 14.69 | | | 199 | 14.55 | | | 111 | 13.37 | | |
| Difficulty | White | 981 | 14.82 | 0.68 | | 804 | 13.83 | 0.12 | | 1047 | 13.84 | 0.93 | |
| | Black | 170 | 14.64 | | | 199 | 13.77 | | | 111 | 13.63 | | |
| Communications | White | 981 | 12.12 | 5.54 | .050 | 804 | 11.87 | 16.14 | .001 | 1047 | 11.83 | 2.34 | |
| | Black | 170 | 12.65 | | | 199 | 12.62 | | | 111 | 12.19 | | |
| Evaluation | White | 981 | 15.52 | 0.08 | | 804 | 15.03 | 0.98 | | 1047 | 16.08 | 9.40 | .005 |
| | Black | 170 | 15.59 | | | 199 | 15.27 | | | 111 | 15.16 | | |
| Environment | White | 981 | 15.12 | 6.82 | .010 | 804 | 13.41 | | | 1047 | 14.03 | .10 | |
| | Black | 170 | 15.77 | | | 199 | 13.76 | | | 111 | 13.45 | | |
| Order | White | 981 | 14.41 | 11.78 | .001 | 804 | 13.38 | 0.75 | | 1047 | 14.03 | 4.44 | .050 |
| | Black | 170 | 13.63 | | | 199 | 13.57 | | | 111 | 13.45 | | |
| Instruction | White | 981 | 16.20 | 0.23 | | 804 | 13.35 | 29.47 | .001 | 1047 | 13.33 | 0.82 | |
| | Black | 170 | 16.32 | | | 199 | 14.60 | | | 111 | 13.06 | | |
| Culture | White | 981 | 15.44 | 8.16 | .010 | 804 | 13.89 | 11.96 | .001 | 1047 | 14.19 | 4.69 | .050 |
| | Black | 170 | 14.69 | | | 199 | 14.73 | | | 111 | 13.54 | | |
| Satisfaction | White | 981 | 14.96 | 0.30 | | 804 | 12.56 | 12.19 | .001 | 1047 | 12.55 | 0.17 | |
| | Black | 170 | 15.09 | | | 199 | 13.31 | | | 111 | 12.44 | | |

Table 4

Classroom Climate Dimensions by Community Type

| | | 4 | | | | 7 | | | | 10 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | X | t | p< | N | X | t | p< | N | X | t | p< |
| **Cohesiveness** | | | | | | | | | | | | | |
| | Rural | 925 | 13.33 | 4.74 | .050 | 888 | 12.58 | 2.50 | | 871 | 13.20 | 45.22 | .001 |
| | Urban | 259 | 12.95 | | | 117 | 12.96 | | | 291 | 12.15 | | |
| **Equality** | | | | | | | | | | | | | |
| | Rural | 925 | 14.94 | 7.24 | .010 | 888 | 13.97 | 28.13 | .001 | 871 | 15.31 | 2.72 | |
| | Urban | 259 | 14.29 | | | 117 | 15.70 | | | 291 | 14.96 | | |
| **Curriculum** | | | | | | | | | | | | | |
| | Rural | 925 | 15.07 | 4.64 | .050 | 888 | 13.32 | 40.10 | .001 | 871 | 13.79 | 24.13 | .001 |
| | Urban | 259 | 14.64 | | | 117 | 15.16 | | | 291 | 12.74 | | |
| **Difficulty** | | | | | | | | | | | | | |
| | Rural | 925 | 14.78 | 0.24 | | 888 | 13.78 | 1.66 | | 871 | 13.91 | 6.91 | .010 |
| | Urban | 259 | 14.88 | | | 117 | 14.06 | | | 291 | 13.52 | | |
| **Communications** | | | | | | | | | | | | | |
| | Rural | 925 | 12.22 | 0.09 | | 888 | 11.91 | 13.04 | .001 | 871 | 13.99 | | .001 |
| | Urban | 259 | 12.17 | | | 117 | 12.75 | | | 291 | 12.01 | | |
| **Evaluation** | | | | | | | | | | | | | |
| | Rural | 925 | 15.52 | 0.13 | | 888 | 15.05 | 0.44 | | 871 | 16.11 | 7.04 | .010 |
| | Urban | 259 | 15.44 | | | 117 | 15.25 | | | 291 | 15.57 | | |
| **Environment** | | | | | | | | | | | | | |
| | Rural | 925 | 15.32 | 5.30 | .050 | 888 | 13.42 | 2.03 | | 871 | 13.30 | 14.19 | .001 |
| | Urban | 259 | 14.83 | | | 117 | 13.84 | | | 291 | 12.63 | | |
| **Order** | | | | | | | | | | | | | |
| | Rural | 925 | 14.37 | 11.16 | .001 | 888 | 13.30 | 10.73 | .001 | 871 | 14.19 | 24.64 | .001 |
| | Urban | 259 | 13.72 | | | 117 | 14.16 | | | 291 | 13.28 | | |
| **Instruction** | | | | | | | | | | | | | |
| | Rural | 925 | 16.17 | 0.87 | | 888 | 13.39 | 30.36 | .001 | 871 | 13.47 | 13.33 | .001 |
| | Urban | 259 | 16.37 | | | 117 | 14.98 | | | 291 | 12.76 | | |
| **Culture** | Rural | 925 | 15.30 | 0.26 | | 888 | 13.82 | 32.38 | .001 | 871 | 14.37 | 25.30 | .001 |
| | Urban | 259 | 15.42 | | | 117 | 15.54 | | | 291 | 13.36 | | |
| **Satisfaction** | | | | | | | | | | | | | |
| | Rural | 925 | 14.93 | 0.01 | | 888 | 12.53 | 23.88 | .001 | 871 | 12.71 | 14.86 | .001 |
| | Urban | 259 | 14.95 | | | 117 | 13.83 | | | 291 | 12.01 | | |

Table 5

Classroom Climate Dimensions by Academic Performance

| | | 4 | | | | | 7 | | | | | 10 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | X | t | p< | Pairs | N | X | t | p< | Pairs | N | X | t | p< | Pairs |
| Cohesiveness | A | 453 | 13.36 | 0.84 | - | | 279 | 12.61 | 3.84 | .010 | | 172 | 13.30 | 4.56 | .005 | 1 |
| | B | 452 | 13.15 | | | | 366 | 12.88 | | | 2 | 489 | 13.07 | | | |
| | C | 199 | 13.13 | | | | 263 | 12.50 | | | | 450 | 12.74 | | | |
| | D or F | 73 | 13.45 | | | | 93 | 12.00 | | | 4 | 65 | 12.92 | | | 4 |
| Equality | A | 453 | 15.42 | 10.45 | .001 | 2 3 4 | 279 | 14.91 | 17.99 | .001 | 3 4 | 172 | 15.76 | 14.03 | .001 | 2 3 4 |
| | B | 452 | 14.75 | | | 1 3 | 366 | 14.52 | | | 3 4 | 489 | 15.63 | | | 1 3 4 |
| | C | 199 | 13.92 | | | 1 2 | 263 | 13.34 | | | 1 2 | 450 | 14.74 | | | 1 2 4 |
| | D or F | 73 | 14.82 | | | 1 | 96 | 12.46 | | | 1 2 | 65 | 13.52 | | | 2 3 4 |
| Curriculum | A | 453 | 15.35 | 3.93 | .010 | 3 | 279 | 13.84 | 8.42 | | 4 | 172 | 14.33 | 10.80 | .001 | |
| | B | 452 | 14.86 | | | | 366 | 13.80 | | | 4 | 489 | 13.78 | | | |
| | C | 199 | 14.64 | | | 1 | 263 | 13.44 | | | 4 | 150 | 13.14 | | | |
| | D or F | 73 | 14.73 | | | | 96 | 12.19 | | | 2 3 4 | 65 | 12.23 | | | |
| Difficulty | A | 453 | 15.19 | 9.19 | .001 | 3 4 | 279 | 14.11 | 6.27 | .001 | | 172 | 14.27 | 11.52 | .001 | 4 |
| | B | 452 | 14.80 | | | 4 | 366 | 13.95 | | | | 489 | 14.04 | | | 4 |
| | C | 199 | 14.41 | | | 1 | 263 | 13.56 | | | | 450 | 13.50 | | | 4 |
| | D or F | 73 | 13.64 | | | 1 | 96 | 13.13 | | | | 65 | 12.91 | | | 1 2 3 |
| Communications | A | 453 | 12.29 | 0.87 | | | 279 | 12.01 | 0.56 | | | 172 | 12.25 | 1.84 | | |
| | B | 452 | 12.29 | | | 1 | 366 | 12.07 | | | | 489 | 11.85 | | | |
| | C | 199 | 11.96 | | | | 263 | 11.86 | | | | 450 | 11.77 | | | |
| | D or F | 73 | 12.04 | | | 1 | 96 | 12.16 | | | | 65 | 11.71 | | | |
| Evaluation | A | 453 | 15.98 | 6.13 | .001 | 2 4 | 279 | 15.87 | 23.96 | | 3 4 | 172 | 16.78 | 23.85 | .001 | 3 4 |
| | B | 452 | 15.24 | | | 1 | 366 | 15.48 | | | 3 4 | 489 | 16.48 | | | 3 4 |
| | C | 199 | 15.40 | | | | 263 | 14.28 | | | 1 2 | 450 | 15.38 | | | 1 2 4 |
| | D or F | 73 | 14.74 | | | 1 | 96 | 13.49 | | | 1 2 | 65 | 14.15 | | | 1 2 3 |
| Environment | A | 453 | 15.41 | 1.52 | | | 279 | 13.49 | 4.72 | .010 | | 172 | 13.28 | 1.38 | | |
| | B | 452 | 15.11 | | | | 366 | 13.79 | | | 4 | 489 | 13.29 | | | |
| | C | 199 | 15.31 | | | | 263 | 13.32 | | | | 450 | 12.98 | | | |
| | D or F | 73 | 14.73 | | | | 96 | 12.56 | | | 2 | 65 | 12.92 | | | |

Table 5 continued

Classroom Climate Dimensions by Academic Performance

| | | 4 | | | | | 7 | | | | | 10 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | X | t | p< | Pairs | N | X | t | p< | Pairs | N | X | t | p< | Pairs |
| Order | A | 453 | 14.70 | 9.11 | .001 | 2 3 4 | 279 | 13.83 | 12.18 | .001 | 4 | 172 | 14.47 | 15.28 | .001 | 3 4 |
| | B | 452 | 14.16 | | | 1 4 | 366 | 13.55 | | | 4 | 489 | 14.37 | | | 3 4 |
| | C | 199 | 13.89 | | | 1 | 263 | 13.25 | | | 4 | 450 | 13.51 | | | 1 2 |
| | D or F | 73 | 13.15 | | | 1 2 | 96 | 12.00 | | | 1 2 3 | 65 | 12.60 | | | 1 2 |
| Instruction | A | 453 | 16.46 | 2.66 | .050 | | 279 | 13.63 | 4.61 | .010 | 4 | 172 | 13.79 | 3.58 | .050 | |
| | B | 452 | 16.22 | | | | 366 | 13.85 | | | 4 | 489 | 13.39 | | | |
| | C | 199 | 15.85 | | | | 236 | 13.56 | | | | 450 | 13.09 | | | |
| | D or F | 73 | 15.73 | | | | 96 | 12.59 | | | 1 2 | 65 | 12.68 | | | |
| Culture | A | 453 | 15.76 | 6.38 | .001 | 4 3 | 279 | 14.44 | 17.27 | .001 | 3 4 | 172 | 15.01 | 17.75 | .001 | 3 4 |
| | B | 452 | 15.31 | | | | 366 | 14.51 | | | 3 4 | 489 | 14.45 | | | |
| | C | 199 | 14.80 | | | 1 | 263 | 13.63 | | | 4 | 450 | 13.65 | | | 1 |
| | D or F | 73 | 14.48 | | | 1 | 96 | 12.25 | | | 1 2 3 | 65 | 12.54 | | | 1 |
| Satisfaction | A | 453 | 15.35 | 6.03 | .001 | | 279 | 12.87 | 6.02 | .001 | | 172 | 13.07 | 4.50 | .005 | |
| | B | 452 | 14.89 | | | | 366 | 12.95 | | | | 489 | 12.61 | | | |
| | C | 199 | 14.54 | | | | 263 | 12.56 | | | | 450 | 12.63 | | | |
| | D or F | 73 | 14.04 | | | | 96 | 11.70 | | | | 65 | 11.91 | | | |

Table 6

Classroom Climate Dimensions by Participation in Extracurricular Activities

| | | 7 | | | | 10 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | N | X | t | p< | N | X | t | p< |
| Cohesiveness | None | 227 | 12.54 | -0.49 | | 290 | 12.68 | -2.00 | .050 |
| | 1 or more | 681 | 12.64 | | | 793 | 13.00 | | |
| Equality | None | 227 | 13.79 | -1.98 | .050 | 290 | 14.88 | -1.95 | |
| | 1 or More | 681 | 14.33 | | | 793 | 15.31 | | |
| Curriculum | None | 227 | 12.84 | -3.80 | .001 | 290 | 12.64 | -4.49 | .001 |
| | 1 or More | 681 | 13.72 | | | 793 | 13.74 | | |
| Difficulty | None | 227 | 13.66 | -1.04 | | 290 | 13.56 | -2.01 | .050 |
| | 1 or More | 681 | 13.84 | | | 793 | 13.86 | | |
| Communications | None | 227 | 11.66 | -2.13 | .050 | 290 | 11.53 | -2.33 | .050 |
| | 1 or More | 681 | 12.05 | | | 793 | 11.92 | | |
| Evaluation | None | 227 | 14.77 | -1.93 | | 290 | 15.51 | -2.88 | .005 |
| | 1 or More | 681 | 15.22 | | | 793 | 16.10 | | |
| Environment | None | 227 | 13.16 | -1.80 | | 290 | 12.98 | -0.77 | |
| | 1 or More | 681 | 13.57 | | | 793 | 13.12 | | |
| Order | None | 227 | 12.87 | -3.35 | .005 | 290 | 13.61 | -2.05 | .050 |
| | 1 or More | 681 | 13.60 | | | 793 | 14.00 | | |
| Instruction | None | 227 | 12.98 | -3.19 | .001 | 290 | 12.63 | -3.89 | .001 |
| | 1 or More | 681 | 13.70 | | | 793 | 13.40 | | |
| Culture | None | 227 | 13.48 | -2.73 | .010 | 290 | 13.28 | -5.09 | .001 |
| | 1 or More | 681 | 14.14 | | | 793 | 14.32 | | |
| Satisfaction | None | 227 | 12.22 | -2.89 | .005 | 290 | 11.95 | -3.64 | .001 |
| | 1 or More | 681 | 12.86 | | | 793 | 12.63 | | |

Table 7

Classroom Climate Dimensions by Education Plans

| | | 7 | | | | 10 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | N | X | t | p< | N | X | t | p< |
| Cohesiveness | College | 630 | 12.70 | 1.07 | | 751 | 13.00 | -1.47 | |
| | Other | 350 | 12.53 | | | 393 | 12.79 | | |
| Equality | College | 630 | 14.43 | 3.36 | .001 | 751 | 15.51 | 4.92 | .001 |
| | Other | 350 | 13.67 | | | 393 | 14.51 | | |
| Curriculum | College | 630 | 13.77 | 3.15 | .010 | 751 | 13.73 | 3.35 | .001 |
| | Other | 350 | 13.14 | | | 393 | 13.05 | | |
| Difficulty | College | 630 | 14.03 | 4.18 | .001 | 751 | 14.07 | 5.61 | .001 |
| | Other | 350 | 13.41 | | | 393 | 13.30 | | |
| Communications | College | 630 | 11.94 | -1.15 | | 751 | 11.79 | -0.69 | |
| | Other | 350 | 12.12 | | | 393 | 11.89 | | |
| Evaluation | College | 630 | 15.42 | 4.48 | .001 | 751 | 16.40 | 7.04 | .001 |
| | Other | 350 | 14.48 | | | 393 | 15.11 | | |
| Environment | College | 630 | 13.58 | 1.33 | | 751 | 13.20 | 1.27 | |
| | Other | 350 | 13.32 | | | 393 | 12.99 | | |
| Order | College | 630 | 13.67 | 4.08 | .001 | 751 | 14.16 | 4.05 | .001 |
| | Other | 350 | 12.93 | | | 393 | 13.47 | | |
| Instruction | College | 630 | 13.69 | 1.40 | | 751 | 13.41 | 2.72 | .010 |
| | Other | 350 | 13.41 | | | 393 | 12.92 | | |
| Culture | College | 630 | 14.34 | 3.97 | .001 | 751 | 14.35 | 4.22 | .001 |
| | Other | 350 | 13.50 | | | 393 | 13.57 | | |
| Satisfaction | College | 630 | 12.88 | 3.00 | .010 | 751 | 12.64 | 2.43 | .050 |
| | Other | 350 | 12.33 | | | 393 | 12.24 | | |

Table 9

Classroom Climate Dimensions by At-Risk Identification (Teacher)

| | | 4 | | | | 7 | | | | 10 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | X | t | p< | N | X | t | p< | N | X | t | P |
| Cohesiveness | Yes | 115 | 12.97 | 1.51 | .050 | 91 | 12.43 | | | 139 | 12.38 | 9.10 | .005 |
| | No | 1077 | 13.26 | | | 922 | 12.64 | | | 1026 | 13.02 | | |
| Equality | Yes | 115 | 14.39 | 1.73 | | 91 | 12.91 | 14.24 | .001 | 139 | 14.36 | 11.35 | .001 |
| | No | 1077 | 14.84 | | | 922 | 14.30 | | | 1026 | 15.33 | | |
| Curriculum | Yes | 115 | 14.63 | 1.93 | | 91 | 12.96 | 3.89 | .050 | 139 | 12.96 | 4.97 | .050 |
| | No | 1077 | 15.02 | | | 922 | 13.61 | | | 1026 | 13.60 | | |
| Difficulty | Yes | 115 | 14.18 | 6.54 | .010 | 91 | 12.71 | 24.57 | .001 | 139 | 13.30 | 8.71 | .005 |
| | No | 1077 | 14.86 | | | 922 | 13.92 | | | 1026 | 13.88 | | |
| Communications | Yes | 115 | 12.27 | 0.08 | | 91 | 12.10 | 0.16 | | 139 | 11.67 | 1.03 | |
| | No | 1077 | 12.19 | | | 922 | 11.99 | | | 1026 | 11.89 | | |
| Evaluation | Yes | 115 | 14.96 | | | 91 | 13.70 | 20.09 | .001 | 139 | 14.45 | 41.84 | .001 |
| | No | 1077 | 15.55 | | | 922 | 15.21 | | | 1026 | 16.18 | | |
| Environment | Yes | 115 | 14.91 | 1.37 | | 91 | 12.90 | 3.73 | .050 | 139 | 13.04 | 1.06 | |
| | No | 1077 | 15.26 | | | 922 | 13.53 | | | 1026 | 14.08 | | |
| Order | Yes | 115 | 13.99 | 0.98 | | 91 | 12.84 | 4.63 | .050 | 139 | 13.04 | 18.06 | .001 |
| | No | 1077 | 14.26 | | | 922 | 13.47 | | | 1026 | 14.08 | | |
| Instruction | Yes | 115 | 16.12 | 1.04 | | 91 | 13.05 | 3.24 | | 139 | 13.92 | 2.55 | |
| | No | 1077 | 16.21 | | | 922 | 13.64 | | | 1026 | 13.34 | | |
| Culture | Yes | 115 | 14.83 | 3.11 | | 91 | 12.68 | 19.26 | .001 | 139 | 13.42 | 8.47 | .005 |
| | No | 1077 | 15.38 | | | 922 | 14.17 | | | 1026 | 14.20 | | |
| Satisfaction | Yes | 115 | 14.57 | 1.86 | | 91 | 12.23 | 2.96 | | 139 | 12.34 | 0.82 | |
| | No | 1077 | 14.98 | | | 922 | 12.74 | | | 1026 | 12.56 | | |

Appendix D

Self Concept as Learner Tables

Table 1

Self Concept as a Learner Item Means by Grade, Fall '89

| No | Question | Dir | Grade 5 | 8 | 11 |
|---|---|---|---|---|---|
| | **Motivation** | | | | |
| 1. | I like to go to school. | P | 3.29 | 3.25 | 3.31 |
| 2. | I never ask teachers to explain something again. | N | 2.83 | 2.80 | 3.17 |
| 3. | I try to change when I know I'm doing something wrong. | P | **4.03** | **3.96** | **3.97** |
| 4. | I give up easily when doing school work. | N | 2.20 | 2.41 | 2.76 |
| 5. | I do the work I am told to do, but I don't do extra work. | N | 3.28 | 3.16 | 3.09 |
| 6. | I like to do well in school. | P | **4.52** | **4.36** | **4.10** |
| 7. | I put off until tomorrow what I should do today. | N | 2.24 | 2.86 | 3.12 |
| 8. | I do things without being told several times. | P | 3.35 | 3.19 | **3.70** |
| 9. | I feel good about the school work I do. | P | **3.62** | 3.40 | 3.37 |
| 10. | I like school jobs which give me responsibility. | P | **3.88** | **3.64** | 3.47 |
| 11. | I like to start work on new activities. | P | **3.88** | **3.51** | **3.50** |
| | **Task Orientation** | | | | |
| 12. | I have trouble remembering directions for doing things. | N | 2.70 | 2.60 | 2.62 |
| 13. | I do well when I work alone. | P | **3.64** | **3.56** | 3.43 |
| 14. | I get my work done on time. | P | **3.78** | **3.59** | **3.54** |
| 15. | It is hard for me to decide what I need to study. | N | 2.68 | 2.75 | 2.95 |
| 16. | I may copy school work from my friends. | N | 1.71 | 2.46 | 2.70 |
| 17. | When I am part of a group, I do my share of the work. | P | **4.20** | **4.06** | **3.88** |
| 18. | I give up if I don't understand something. | N | 2.17 | 2.46 | 2.73 |
| 19. | I try to be careful about my work. | P | **4.28** | **3.89** | 3.37 |
| 20. | I like to be called on in class. | P | **3.55** | 2.81 | 2.41 |
| 21. | I make mistakes because I don't listen. | N | 2.62 | 2.68 | 2.88 |
| 22. | I do things without thinking. | N | 2.45 | 2.66 | 2.69 |

Table 1 (continued)

Self Concept as a Learner Inventory Item Means by School Level, Fall '89
Preliminary Results

| No | Question | Dir | Grade 5 | 8 | 11 |
|---|---|---|---|---|---|
| **Problem Solving** | | | | | |
| 23. | I find it hard to remember things. | N | 2.70 | 2.56 | 2.59 |
| 24. | I do not always understand what is going on in class. | N | 2.85 | 2.79 | 2.78 |
| 25. | I can express my ideas well. | P | 3.39 | 3.19 | 2.96 |
| 26. | I can tell the difference between important/unimportant things. | P | **3.72** | **3.59** | **3.83** |
| 27. | I do poorly on tests. | N | 2.45 | 2.68 | 2.63 |
| 28. | I change my mind a lot. | N | 3.27 | 3.11 | 3.10 |
| 29. | I feel good about what I learn in school. | P | **4.02** | **3.68** | **3.58** |
| 30. | I solve problems easily. | P | 3.22 | 3.11 | 3.28 |
| 31. | I can figure things out for myself. | P | 3.35 | 3.32 | **3.52** |
| 32. | It is easy for me to make good grades. | P | 3.23 | 3.15 | 3.19 |
| 33. | I know the answers before most of the other students. | P | 2.94 | 2.87 | 3.20 |
| **Class Membership** | | | | | |
| 34. | I find it easy to get along with classmates. | P | **3.74** | **3.82** | **3.83** |
| 35. | I take an active part in class projects and activities. | P | **3.72** | 3.29 | 3.24 |
| 36. | I try to play fair with my classmates. | P | **4.27** | **4.03** | **3.68** |
| 37. | I try to understand other students. | P | **4.04** | **3.85** | **3.71** |
| 38. | If I am absent, I am really missed. | P | 2.89 | 2.97 | 2.97 |
| 39. | I am not interested in what other students do in class. | N | 2.73 | 2.77 | 2.65 |
| 40. | I find it hard to talk with classmates. | N | 2.29 | 2.20 | 2.63 |
| 41. | I feel left out of things in class. | N | 2.51 | 2.38 | 2.55 |
| 42. | I get along well with the teacher. | P | **4.03** | **3.78** | **3.95** |
| 43. | I have lots of friends in the class. | P | **3.94** | **4.06** | **4.01** |
| 44. | Other students ask me for help. | P | 3.17 | 3.27 | 3.28 |

Table 2

Self Concept as Learner Dimensions by Sex

| | | Fifth Grade | | | | Eighth Grade | | | | Eleventh Grade | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Variable | | N | X | *t* | p< | N | X | *t* | p< | N | X | *t* | p< |
| Motivation | Male | 468 | 39.04 | 8.59 | 0.001 | 398 | 37.07 | 10.38 | 0.001 | 480 | 37.06 | 10.30 | 0.001 |
| | Female | 475 | 40.92 | | | 464 | 39.13 | | | 574 | 38.86 | | |
| Task Orientation | Male | 468 | 40.20 | 5.56 | 0.001 | 398 | 37.61 | 5.89 | 0.001 | 480 | 37.67 | 5.26 | 0.001 |
| | Female | 475 | 41.47 | | | 464 | 39.36 | | | 574 | 39.07 | | |
| Prob Solving | Male | 468 | 36.39 | 0.29 | | 398 | 35.99 | 0.37 | | 480 | 36.53 | 0.76 | |
| | Female | 475 | 36.58 | | | 464 | 36.21 | | | 574 | 36.61 | | |
| Class Mbership | Male | 468 | 39.31 | 5.75 | 0.001 | 398 | 38.96 | 7.01 | 0.001 | 480 | 39.50 | 14.05 | 0.001 |
| | Female | 475 | 40.78 | | | 464 | 40.84 | | | 574 | 41.95 | | |

Table 3

Self Concept as Learner Dimensions by Race

| Variable | | Fifth Grade N | X | t | p< | Eighth Grade N | X | t | p< | Eleventh Grade N | X | t | p< |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Motivation | White | 800 | 39.90 | 0.00 | | 627 | 37.84 | 7.97 | 0.005 | 954 | 37.97 | 0.09 | |
| | Black | 156 | 39.87 | | | 237 | 39.06 | | | 107 | 38.13 | | |
| Task Orientation | White | 800 | 40.87 | 1.63 | | 627 | 38.16 | 9.12 | 0.005 | 954 | 38.40 | 0.01 | |
| | Black | 156 | 40.14 | | | 237 | 39.65 | | | 107 | 38.44 | | |
| Prob Solving | White | 800 | 36.46 | 0.00 | | 627 | 35.85 | 4.50 | 0.050 | 954 | 36.52 | 0.23 | |
| | Black | 156 | 36.47 | | | 237 | 36.83 | | | 107 | 36.79 | | |
| Class Mbership | White | 800 | 40.08 | 2.26 | | 627 | 39.76 | 1.78 | | 954 | 40.93 | 5.87 | 0.05 |
| | Black | 156 | 39.20 | | | 237 | 40.44 | | | 107 | 39.36 | | |

Table 4

Self Concept as Learner Dimensions by Community Type

| | | Fifth Grade | | | Eighth Grade | | | | Eleventh Grade | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Variable | | N | X | *t* | p< | N | X | *t* | p< | N | X | *t* | p< |
| Motivation | Rural | 827 | 39.95 | 0.23 | | 734 | 37.99 | 4.98 | 0.05 | 839 | 37.89 | 1.94 | |
| | Urban | 277 | 40.15 | | | 113 | 39.18 | | | 229 | 38.44 | | |
| Task Orientation | Rural | 827 | 40.87 | 1.04 | | 734 | 38.38 | 4.23 | 0.05 | 839 | 38.30 | 1.02 | |
| | Urban | 277 | 41.34 | | | 133 | 39.64 | | | 229 | 38.73 | | |
| Prob Solving | Rural | 827 | 36.46 | 1.44 | | 734 | 35.99 | 1.07 | | 839 | 36.36 | 4.18 | 0.05 |
| | Urban | 277 | 36.99 | | | 133 | 36.59 | | | 229 | 37.21 | | |
| Class Mbership | Rural | 827 | 40.17 | 0.00 | | 734 | 39.78 | 2.16 | | 839 | 40.70 | 0.44 | |
| | Urban | 277 | 40.17 | | | 133 | 40.71 | | | 229 | 41.02 | | |

Table 5

Self Concept as Learner Dimensions by Academic Performance

| | | Fifth Grade | | | | | Eighth Grade | | | | | Eleventh Grade | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Variable | | N | X | F | p< | Pairs | N | X | F | p< | Pairs | N | X | F | p< | Pairs |
| Motivation | A (1) | 360 | 41.66 | 28.52 | 0.001 | 2 3 4 | 156 | 41.25 | 49.69 | 0.001 | 2 3 4 | 156 | 40.85 | 69.07 | 0.001 | 2 3 4 |
| | B (2) | 413 | 40.21 | | | 1 3 4 | 319 | 39.36 | | | 1 3 4 | 435 | 39.31 | | | 1 3 4 |
| | C (3) | 209 | 37.97 | | | 1 2 4 | 306 | 36.33 | | | 1 2 4 | 425 | 36.29 | | | 1 2 4 |
| | D or F (4) | 92 | 36.72 | | | 1 2 3 | 84 | 34.43 | | | 1 2 3 | 52 | 32.60 | | | 1 2 3 |
| Task Orientation | A (1) | 360 | 43.46 | 45.45 | 0.001 | 2 3 4 | 156 | 42.90 | 73.12 | 0.001 | 2 3 4 | 156 | 43.04 | 104.83 | 0.001 | 2 3 4 |
| | B (2) | 413 | 41.02 | | | 1 3 4 | 319 | 40.08 | | | 1 3 4 | 435 | 39.61 | | | 1 3 4 |
| | C (3) | 209 | 38.71 | | | 1 2 4 | 306 | 36.14 | | | 1 2 4 | 425 | 36.12 | | | 1 2 4 |
| | D or F (4) | 92 | 36.37 | | | 1 2 3 | 84 | 33.69 | | | 1 2 3 | 52 | 32.90 | | | 1 2 3 |
| Prob Solving | A (1) | 360 | 39.63 | 68.98 | 0.001 | 2 3 4 | 156 | 40.51 | 77.19 | 0.001 | 2 3 4 | 156 | 42.95 | 35.91 | 0.001 | 2 3 4 |
| | B (2) | 413 | 36.60 | | | 1 3 4 | 319 | 37.18 | | | 1 3 4 | 435 | 42.13 | | | 1 3 4 |
| | C (3) | 209 | 33.59 | | | 1 2 4 | 306 | 34.02 | | | 1 2 4 | 425 | 39.20 | | | 1 2 4 |
| | D or F (4) | 92 | 31.83 | | | 1 2 3 | 84 | 31.18 | | | 1 2 3 | 52 | 35.67 | | | 1 2 3 |
| Class Mbership | A (1) | 360 | 42.39 | 40.85 | 0.001 | 2 3 4 | 156 | 43.29 | 34.23 | 0.001 | 2 3 4 | 156 | 42.95 | 35.91 | 0.001 | 3 4 |
| | B (2) | 413 | 40.54 | | | 1 3 4 | 319 | 40.94 | | | 1 3 4 | 435 | 42.13 | | | 3 4 |
| | C (3) | 209 | 37.92 | | | 1 2 4 | 306 | 38.06 | | | 1 2 | 425 | 39.20 | | | 1 2 4 |
| | D or F (4) | 92 | 35.56 | | | 1 2 3 | 84 | 36.39 | | | 1 2 | 52 | 35.67 | | | 1 2 3 |

Table 6

Self Concept as Learner Dimensions by Participation Extra Curricular Activities

| | | Eighth Grade | | | | Eleventh Grade | | | |
|---|---|---|---|---|---|---|---|---|---|
| Variable | | N | X | *t* | p< | N | X | *t* | p< |
| Motivation | None | 202 | 36.33 | -5.32 | 0.001 | 257 | 35.41 | -9.53 | 0.001 |
| | 1 or More | 662 | 38.72 | | | 799 | 38.86 | | |
| Task Orientation | None | 202 | 36.42 | -5.28 | 0.001 | 257 | 36.51 | -6.26 | 0.001 |
| | 1 or More | 662 | 39.14 | | | 799 | 39.01 | | |
| Prob Solving | None | 202 | 34.26 | -4.87 | 0.001 | 257 | 37.65 | -9.47 | 0.001 |
| | 1 or More | 662 | 36.60 | | | 799 | 41.78 | | |
| Class Mbership | None | 202 | 37.75 | -5.26 | 0.001 | 257 | 37.65 | -9.47 | 0.001 |
| | 1 or More | 662 | 40.56 | | | 799 | 41.78 | | |

Table 7

Self Concept as Learner Dimensions by Educational Plans

| Variable | | Eighth Grade N | Eighth Grade X | Eighth Grade *t* | Eighth Grade p< | Eleventh Grade N | Eleventh Grade X | Eleventh Grade *t* | Eleventh Grade p< |
|---|---|---|---|---|---|---|---|---|---|
| Motivation | College | 532 | 39.36 | 7.98 | 0.001 | 642 | 39.17 | 9.04 | 0.001 |
| | Other | 330 | 36.29 | | | 402 | 36.26 | | |
| Task Orientation | College | 532 | 39.83 | 7.68 | 0.001 | 642 | 39.61 | 8.73 | 0.001 |
| | Other | 330 | 36.45 | | | 405 | 36.58 | | |
| Prob Solving | College | 532 | 37.15 | 7.00 | 0.001 | 642 | 42.20 | 9.21 | 0.001 |
| | Other | 330 | 34.26 | | | 405 | 38.65 | | |
| Class Membership | College | 532 | 41.14 | 6.86 | 0.001 | 642 | 42.20 | 9.21 | 0.001 |
| | Other | 330 | 37.92 | | | 405 | 38.65 | | |

Table 8

Self Concept as Learner Dimensions by Drop Out Plans

| Variable | | Eighth Grade N | Eighth Grade X | Eighth Grade *t* | Eighth Grade p< | Eleventh Grade N | Eleventh Grade X | Eleventh Grade *t* | Eleventh Grade p< |
|---|---|---|---|---|---|---|---|---|---|
| Motivation | No | 675 | 39.10 | 8.79 | 0.001 | 833 | 38.91 | 11.27 | 0.001 |
| | Yes | 190 | 34.82 | | | 217 | 34.41 | | |
| Task Orientation | No | 675 | 39.49 | 8.72 | 0.001 | 833 | 39.32 | 10.64 | 0.001 |
| | Yes | 190 | 35.03 | | | 217 | 34.95 | | |
| Prob Solving | No | 675 | 36.93 | 8.47 | 0.001 | 833 | 41.69 | 9.30 | 0.001 |
| | Yes | 190 | 32.89 | | | 217 | 37.37 | | |
| Class Membership | No | 675 | 40.95 | 9.03 | 0.001 | 833 | 41.69 | 9.30 | 0.001 |
| | Yes | 190 | 36.13 | | | 217 | 37.37 | | |

Table 9

Self Concept as Learner Dimensions by At Risk Factors

| Variable | | Fifth Grade N | Fifth Grade X | Fifth Grade *t* | Fifth Grade p< | Eighth Grade N | Eighth Grade X | Eighth Grade *t* | Eighth Grade p< | Eleventh Grade N | Eleventh Grade X | Eleventh Grade *t* | Eleventh Grade p< |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Motivation | Yes | 96 | 37.85 | 13.04 | 0.001 | 69 | 36.13 | 9.62 | 0.005 | 100 | 36.22 | 13.01 | 0.001 |
| | No | 1015 | 40.16 | | | 802 | 38.33 | | | 969 | 38.19 | | |
| Task Orientation | Yes | 96 | 38.93 | 10.06 | 0.001 | 69 | 35.35 | 18.45 | 0.001 | 100 | 36.30 | 15.38 | 0.001 |
| | No | 1015 | 41.15 | | | 802 | 38.83 | | | 969 | 38.61 | | |
| Prob Solving | Yes | 96 | 34.86 | 7.33 | 0.010 | 69 | 33.97 | 9.17 | 0.005 | 100 | 34.97 | 8.93 | 0.050 |
| | No | 1015 | 36.74 | | | 802 | 36.26 | | | 969 | 36.71 | | |
| Class Mbership | Yes | 96 | 36.85 | 26.41 | 0.001 | 69 | 36.52 | 19.30 | 0.001 | 100 | 38.48 | 14.59 | 0.001 |
| | No | 1015 | 40.45 | | | 802 | 40.20 | | | 909 | 41.01 | | |

## Appendix E

## Summary Tables: Student Data

Table 1

Classroom Climate Dimensions by Sex

| | Grade | | |
|---|---|---|---|
| | 4 | 7 | 10 |
| Cohesiveness | F | | |
| Equality | F | F | F |
| Curriculum | F | F | F |
| Difficulty | F | F | F |
| Communication | | | |
| Evaluation | | F | F |
| Environment | | | |
| Order | F | F | F |
| Instruction | | F | |
| Culture | F | F | F |
| Satisfaction | F | F | F |

M = Male
F = Female

Table 2

Classroom Climate Dimensions by Race

| | Grade | | |
|---|---|---|---|
| | 4 | 7 | 10 |
| Cohesiveness | | | |
| Equality | W | B | |
| Curriculum | | B | |
| Difficulty | | | |
| Communication | B | B | |
| Evaluation | | | W |
| Environment | B | | |
| Order | W | | W |
| Instruction | | B | |
| Culture | W | B | W |
| Satisfaction | | B | |

B = Black
W = White

Table 3

Classroom Climate Dimensions by Community Type

| | Grade | | |
|---|---|---|---|
| | 4 | 7 | 10 |
| Cohesiveness | R | | R |
| Equality | R | U | |
| Curriculum | R | | R |
| Communication | | U | R |
| Evaluation | | | R |
| Environment | R | | R |
| Order | R | U | R |
| Instruction | | U | R |
| Culture | | U | R |
| Satisfaction | | U | R |

R = Rural
U = Urban

Table 4

Classroom Climate Dimensions by Academic Performance Groups

| | Grade | | |
|---|---|---|---|
| | 4 | 7 | 10 |
| Cohesiveness | | B | A |
| Equality | A&B | A&B | A |
| Curriculum | A | | B |
| Difficulty | A | | A |
| Communication | A | | |
| Evaluation | A | A&B | A&B |
| Environment | A | B | |
| Order | A | B | |
| Instruction | | A&B | |
| Culture | A | A&B | A&B |
| Satisfaction | A | A | A&B |

A = Earn mostly A's
A&B = Earn mostly A's & B's

Table 5

Classroom Climate Dimensions by Participation in Extra Curricular Activities

| | Grade | |
|---|---|---|
| | 7 | 10 |
| Cohesiveness | | Y |
| Equality | Y | |
| Curriculum | Y | Y |
| Difficulty | | Y |
| Communication | Y | Y |
| Evaluation | | Y |
| Environment | | |
| Order | Y | Y |
| Instruction | Y | Y |
| Culture | Y | Y |
| Satisfaction | Y | Y |

Y = Yes
N = No

Table 6

Classroom Climate Dimensions by Education Plans

| | Grade | |
|---|---|---|
| | 7 | 10 |
| Cohesiveness | | |
| Equality | C | C |
| Curriculum | C | C |
| Difficulty | C | C |
| Communication | | |
| Evaluation | C | C |
| Environment | | |
| Order | C | C |
| Instruction | | |
| Culture | C | C |
| Satisfaction | C | C |

C = College
O = Other

Table 7

Classroom Climate Dimensions by Dropout Plans

| | Grade | |
|---|---|---|
| | 7 | 10 |
| Cohesiveness | N | N |
| Equality | N | N |
| Curriculum | N | N |
| Difficulty | N | N |
| Communication | | |
| Evaluation | N | N |
| Environment | N | N |
| Order | N | N |
| Instruction | N | N |
| Culture | N | N |
| Satisfaction | N | N |

Y = Yes
N = No

Table 8

Classroom Climate Dimensions by At-Risk Identification by Teachers

| | Grade | | |
|---|---|---|---|
| | 4 | 7 | 10 |
| Cohesiveness | N | | N |
| Equality | | N | N |
| Curriculum | | N | N |
| Difficulty | N | N | N |
| Communication | | | |
| Evaluation | | N | N |
| Environment | | N | |
| Order | | N | N |
| Instruction | | | |
| Culture | | | |
| Satisfaction | | N | N |

Y = Yes
N = No

Table 9

Self Concept as Learner Factors by Gender

| | Grade | | |
|---|---|---|---|
| | 5 | 8 | 11 |
| Motivation | F | F | F |
| Task Orientation | F | F | F |
| Problem Solving | | | |
| Class Membership | F | F | F |

M = Male
F = Female

Table 10

Self Concept as Learner Factors by Race

| | Grade | | |
|---|---|---|---|
| | 5 | 8 | 11 |
| Motivation | | B | |
| Task Orientation | | B | |
| Problem Solving | | B | |
| Class Membership | | | W |

B = Black
W = White

Table 11

Self Concept as Learner Factors by Community Type

| | Grade | | |
|---|---|---|---|
| | 5 | 8 | 11 |
| Motivation | | U | |
| Task Orientation | | | |
| Problem Solving | | | U |
| Class Membership | | | |

R = Rural
U = Urban

Table 12

Self Concept as Learner Factors by Academic Performance Group

| | Grade | | |
|---|---|---|---|
| | 5 | 8 | 11 |
| Motivation | A | A | A |
| Task Orientation | A | A | A |
| Problem Solving | A | A | A |
| Class Membership | A | A | A&B |

A = Earn mostly A's
A&B = Earn mostly A's & B's

Table 13

Self Concept as Learner Factors by Participation in Extra-Curricular Activities

| | Grade | |
|---|---|---|
| | 8 | 11 |
| Motivation | Y | Y |
| Task Orientation | Y | Y |
| Problem Solving | Y | Y |
| Class Membership | Y | Y |

Y= Yes
N = No

Table 14

Self Concept as Learner Factors by Educational Plans

| | Grade | |
|---|---|---|
| | 8 | 11 |
| Motivation | C | C |
| Task Orientation | C | C |
| Problem Solving | C | C |
| Class Membership | C | C |

C = College
O = Other

Table 15

Self Concept as Learner Factors by Dropout Plans

| | Grade | |
|---|---|---|
| | 8 | 11 |
| Motivation | N | N |
| Task Orientation | N | N |
| Problem Solving | N | N |
| Class Membership | N | N |

Y = Yes
N = No

Table 16

Self Concept as Learner Factors by At-Risk Identification (Teacher)

| | Grade | |
|---|---|---|
| | 8 | 11 |
| Motivation | N | N |
| Task Orientation | N | N |
| Problem Solving | N | N |
| Class Membership | N | N |

Y = Yes
N = No